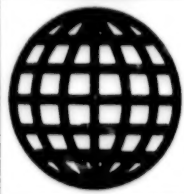


JPRS-TEN-93-023
15 September 1993



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JPRS Report

Environmental Issues

Environmental Issues

JPRS-TEN-93-023

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LESOTHO

Minister Says Leaders Must Identify Environmental Problems

*MB3008181793 Maseru Radio Lesotho in English
1100 GMT 30 Aug 93*

[Text] It is critically important for African researchers and policy makers to identify environmental problems facing their nations and discuss a range of development options which make sense in the national context.

This observation was made today by the honorable minister of education and training, Mr. Pakalitha Mosisili, when officially opening a two-day workshop on Gender Households and Environmental changes in Southern Africa, GHES, held at Maseru Sun Cabanas. The minister said appropriate resource management and sustainable development will only come about when problems, policies and solutions are defined locally.

He pointed out that in many situations women served also to ensure that sustenance of their household contributes to environmental degradation and depletion of resources which in the long term make the work more difficult. Mr. Mosisili gave as an example depleted fuel supplies which mean long walks to gather wood for food preparation and other family chores. (He said) that he hoped that by throwing together alternatives from the Southern African Development Community, SADC, countries and South Africa, the regionally-based dialogue, analysis and critics will begin breaking the cycle of problems being defined and exotic solutions supplied by foreigners.

SOUTH AFRICA

Environment Department Presents Conservation Goals

*MB2708052393 Johannesburg SAPA in English
1812 GMT 26 Aug 93*

[Text] Pretoria Aug 26 SAPA—South Africa's environmental objective is to secure 10% of the country for formal conservation, the Department of Environment Affairs announced on Friday. Between six and seven percent is currently formally conserved.

The figure—which is sure to interest environmentalists concerned about the African National Congress proposal

to turn some conservation areas over to cattle farming—appears in a draft environmental policy in Friday's government gazette.

Noting in its preamble that the maintenance of natural systems and the protection of diverse habitats is essential for the survival of life on earth, it says "the mutual use of national resources, particularly by local populations, should be made possible within sustainable limits."

The concept of sustainable development is accepted as the guiding principle for the management of the country's environmental resources.

Education is needed to, among other things, curtail the "prevailing unwanted growth in the human population." All development should be done "in such a way as to minimize the damaging impact on the environment and/or man, and to facilitate rehabilitation."

Two clauses in the document will be of particular interest to those involved in the controversy surrounding the proposed mining of St. Lucia, an internationally-recognised wetland in northern Natal. "All responsible government institutions must apply appropriate measures based on sound scientific knowledge to ensure that conservation of ecologically sensitive areas for example... wetlands... is achieved," according to one clause.

"International and regional cooperation in fields such as...the conservation of wetlands...will be maintained and extended. The maintenance of protocols and conventions as well as the international treaties to which South Africa is already a signatory will be purposefully pursued," says another.

South Africa is a founder signatory of the Ramsar Convention for the Protection of Internationally-Recognised Wetlands.

The document also focuses on "immovable cultural heritage," the urban environment, pollution control, economic measures and research.

The draft policy was prepared after consultation with various interest groups and was now being put to the public for further comment, according to Environment Minister J A van Wyk.

The public has until September 30 to react to the policy document. Comment can be addressed to the Director General Environment Affairs, Private Bag X447, Pretoria 0001.

New Conservation Regulations Implemented

*OW1108070893 Beijing XINHUA in English
0651 GMT 11 Aug 93*

[Text] Beijing, August 11 (XINHUA)—New regulations for the implementation of China's water and soil conservation law went into effect today, 11 August.

The State Council issued an order signed by Premier Li Peng, promulgating the regulations for the implementation of the law on water and soil conservation.

Under the 35-article regulations, all units and individuals have the right to report to the people's governments, administrative departments of water resources or other departments above county-level illegal forest felling, reclamation of grasslands, and discharging wastes into rivers and lakes, or other actions causing soil erosion.

The regulations also stipulate that local governments and organizations of water and soil conservation should strengthen controls for people and organizations engaged in digging for medical herbs, raising silkworms or producing charcoal and bricks, to prevent soil erosion and deterioration of the environment.

The regulations say that designers of railways, highways, water-control systems, mines, power stations and other construction projects should take water and soil conservation into consideration. Projects without measures to conserve water and soil will not be allowed to begin.

The regulations also lay down penalties for people who violate these laws.

Beijing Expands International Cooperation on Environment

*OW1308140793 Beijing XINHUA in English
1223 GMT 13 Aug 93*

[By Li Zhurun]

[Text] Beijing, August 13 (XINHUA)—International cooperation in environmental protection is contributing to China's economic development, a senior official at the State Environmental Protection Agency (SEPA) said here today.

One example is the Sino-U.S. joint research on using chemical tracers to detect dispersion of air pollutants. "The results were used in development planning for the Beijing-Tianjin-Tangshan area, building of satellite towns for Beijing and expansion of the Baoshan Iron and Steel Works," said Xia Kunbao, director of SEPA's foreign liaison office.

As well as being politically important, the Beijing-Tianjin-Tangshan area is one of China's key industrial zones. And in Shanghai, the multi-billion-dollar Baoshan plant has used German and Japanese equipment to furnish about one-tenth of China's annual iron and steel output.

What is known to experts as the "rapid infiltration and overflow technology" for treating waste water is being

used in five pilot projects in Beijing, Tianjin and Xinjiang, a result of cooperation with the U.S. Environmental Protection Agency's Robert S. Kerr Laboratory in Ada, Oklahoma.

The cost is relatively cheap and, after treatment, waste water becomes clean enough to resupply drinking water sources. "One can easily imagine how important the technology is to China's arid north and northwest," said Xia.

Eleven joint projects have been launched since the signing in May 1980 of a Sino-U.S. Agreement on Scientific and Technological Cooperation in Environmental Protection. These projects include studies into how air pollution affects children's lungs, the criteria for measuring the mercury content in the Songhua river of northeast China, and research on a support system for decision-making on the discharge of river water into China's coastal waters.

Besides cooperating with the United States, China holds bilateral environmental agreements with Britain, France, Finland, the Netherlands, Canada, the Democratic People's Republic of Korea and Mongolia.

Chinese and Japanese experts have completed assessment of water quality in lake Poyang, China's largest lake, and development planning for the lake area, one of central China's richest farming zones. The project was funded by the international cooperation agency of the Japanese Government.

Japan is also spending 10 billion yen (about 96.5 million U.S. dollars) on the building of the Beijing-based Japan-China Friendship Environmental Protection Center, which is expected to be completed in March 1995.

Cooperation with Britain includes environmental planning for Chengde in north China, an imperial summer resort during the Qing Dynasty (1644-1911) and now a major tourist city. Chinese and British experts are also working on treatment of urban solid waste by using bioengineering methods, as well as monitoring the discharge of treated waste water into rivers and the sea.

Qingdao city of Shandong Province has a pilot project using Britain's bioengineering methods to make rubbish harmless. "This means that abandoned dumping sites can some day be turned into residential areas, parks or gardens," Xia said. "This also means something to the entire country, which has limited land relative to its population."

Under China's Eighth Five-Year Plan for social economic development, said Xia, work will be done to apply these methods across China.

Environmental Official Details Antipollution Goals

*OW1608080693 Beijing XINHUA in English
0630 GMT 16 Aug 93*

[By Li Zhurun]

[Text] Beijing, August 16 (XINHUA)—China has made great achievements in protecting its environmental conditions in the past 20 years but environmental protection is still a major task ahead.

This is the opinion of officials and experts at the State Environmental Protection Agency (SEPA) while discussing the issue on the 20th anniversary of China's first national work conference on environmental protection.

The conference, held in August 1973, marked the beginning of national attention to the environment.

China's national economy has grown rapidly over the past 20 years, particularly in the most recent decade which has seen an annual average growth of ten percent. Thanks to improved protection work, said SEPA Deputy Director Wang Yangzu, the environment has not shown a corresponding deterioration.

"That means China's environmental conditions, taken as a whole, are stable," said Wang, "but the problems are still serious."

Industrial enterprises throughout China are still pumping into the air 16.85 million tons of sulfur dioxide a year, an amount exceeded only by the United States.

Mountains of solid waste dot the country, and are estimated at six billion tons. Moreover, some 1.79 million sq m [miles], or one sixth of China's territory, remain at the mercy of water and soil erosion.

In 1992 some 45,000 tons of fish were poisoned in more than 1,000 accidents caused by pollution. China's fisheries and aquatic production sector suffers losses estimated at 400 million yuan a year as a result of polluted fresh and sea water, said Wang.

Wang and his colleagues said that protection work will become increasingly hard as the economy develops. Every year China burns one billion tons of coal, its main source of energy. By the year 2000, they noted, the amount will increase to 1.4 billion tons.

"It is expensive to rid coal of sulphur," said Wang. "The cost accounts for 20 percent to 30 percent of the capital investment in a coal-fueled industrial project."

The Chinese Government plans to bring environmental pollution under control by the end of this century. To attain the goal it needs to spend one percent of the country's gross national product on environmental protection.

The present figure, however, is 0.7 percent. "In our opinion," said Wang, "protection funds can be ensured only when the country becomes economically and financially stronger."

The country, already with a population of nearly 1.2 billion, has an extra 16 million babies born every year. "This certainly causes problems to China's environment and development," Wang said.

China cannot afford to spend as much as developed countries on environmental protection, and neither can

it allow the economy to develop at the expense of the environment, as in the case of some developing countries.

According to SEPA officials and experts, China, in tackling its environmental hazards, has to coordinate the immediate and long-term interests and use methods which are both effective and economical.

"We are following a road that conforms to China's realities, a road with distinct Chinese characteristics," Wang concluded.

U.S. Delegation Briefed on Environmental Work

*OW1908071493 Beijing XINHUA in English
0656 GMT 19 Aug 93*

[Text] Beijing, August 19 (XINHUA)—Joint efforts between China and the United States to protect the environment will be conducive to the promotion of global environmental protection, a senior Chinese official said here today.

Qu Geping, chairman of the Committee on Environmental Protection of China's National People's Congress (NPC), made the remark when meeting with Max Baucus, chairman of the Environment and Public Works Committee of the U.S. Senate, and his party here this morning.

Qu said that co-operation on environmental protection has been a major part of Sino-U.S. relations, adding that such co-operation will contribute to promoting bilateral relations and global environmental protection.

The developed countries should act first in environmental protection, he said, adding they should provide funds and technologies to the developing nations for this end.

During the meeting Qu briefed the guests on China's environmental protection efforts, saying that China attaches great importance to this issue and places it in an important position in the country's economic development plans.

China has regarded environmental protection as a fundamental policy of the state since 1983, he noted.

In the past ten years, he said, great achievements have been made in China's environmental protection work.

The economy of China has been developing at a high speed while its environment remains undeteriorated, and this has been recognized by many countries, he said.

Baucus, who is here on his first visit to China, said that U.S.-China co-operation in environmental protection may be carried out in many aspects, including technology exchanges.

He said that co-operation in the field will further promote bilateral economic co-operation and exchanges as well as co-operation in other fields.

A delegation from the NPC Environmental Protection Committee is welcome to visit the U.S., Baucus said.

Touching on Sino-U.S. trade relations, Qu expressed his appreciation for Baucus' position of supporting China's most-favored-nation status in bilateral trade, saying it is a wise position. He said that only on the basis of mutual equality and benefit, can bilateral trade be further developed.

Baucus and his party arrived here yesterday. After Beijing, they are scheduled to visit Chengdu, Lhasa, Guangzhou and Shenzhen.

After the meeting Qu was interviewed by Philip Boffey, deputy editorial page editor of the New York Times, and answered questions on issues including "global warming" and China's policies as regards these problems.

China 'Tightening' Legal Grip on Environmental Protection

OW2008132193 Beijing XINHUA in English
1310 GMT 20 Aug 93

[Text] Beijing, August 20 (XINHUA)—China is tightening up its environment protection measures and cracking down on violations.

An inspection team, formed by the Environmental Protection Committees (EPC) of both the National People's Congress and the State Council, is to start touring provinces on August 27 to check whether environment protection laws are being enforced.

High-ranking officials from ministries will join in the campaign, aimed at promoting "awareness of environment and law of the whole nation," said an official of the EPC under the State Council.

One cannot be over-optimistic about the quality of China's environment, the official said, citing common misdeeds of "not scrupulously abiding by the laws, not strictly enforcing the laws and not punishing the law-breakers."

Environmental protection is a fundamental state policy of China. Since the 1980s, four laws on environmental protection and eight laws on natural resources protection have been enacted, while a series of administrative regulations have been issued and more than 260 environmental standards set up.

All these have led to the stabilization of environmental quality across the country and improvements in some regions over the last decade.

But environmental pollution and damage of resources is still a serious problem facing China as it gains momentum in its economic drive.

Inspections are due yearly for the next three years in a bid to tighten the legal grip on environmental protection and root out irregularities and violations.

Illegal killing, trading and smuggling of wild animals or species near extinction will also be severely punished.

China maintains that environmental protection should go hand in hand with economic construction, according

to officials. It is to direct more funds for this purpose; at present about one percent of China's gross national product is devoted to this.

Government To Crack Down on Environmental Violations

HK2308030193 Beijing CHINA DAILY in English
23 Aug 93 p 3

[Unattributed report: "Pollution Crackdown Underway"]

[Text] The central government will send inspectors across the country this month to ensure environmental protection laws are being enforced.

The move is part of the government's efforts to tighten environmental protection measures and crack down on violations.

An inspection team has been formed by the environmental protection committees (EPC) of both the National People's Congress and the State Council.

It will start touring the provinces on August 27 to assess the implementation of China's environmental protection laws and regulations.

High-ranking officials from ministries will join the campaign, aimed at promoting "awareness of the environment and the law for the whole nation," according to an EPC official with the State Council.

He said people cannot be overly optimistic about the quality of China's environment because individuals have not scrupulously abided by the laws.

Inspections are due annually for the next three years in a bid to tighten environmental protection and root out irregularities and violations.

China still faces tough work in pollution control despite the progress it has achieved in the field.

The country's environmental situation is continuing to deteriorate because of the rapid development of such basic industries as energy and raw materials.

According to a 1992 report released by the National Environmental Protection Agency, discharges of sulphur dioxide and soot have increased and the number of cities affected by acid rains has also risen.

Environmental protection is a fundamental State policy. Since the 1980s, four environmental protection laws and eight natural resources protection laws have been enacted. A series of administrative regulations have also been issued and more than 260 environmental standards have been established.

These measures have led to the stabilization of environmental quality across the country and improvements in some regions.

But environmental pollution and damage to resources is still a serious problem facing China as it gains momentum in its economic drive.

According to China's environmental protection laws, industrial enterprises economic sanctions in addition to legal penalties.

Illegal killing, trading and smuggling of wild animals or endangered species will also be severely punished.

China maintains that environmental protection should go hand in hand with economic construction. It plan to devote more funds for this purpose.

At present about one percent of China's gross national product is devoted to environmental protection.

International Aid Improves Environment

*OW0309142693 Beijing XINHUA in English
1239 GMT 3 Sep 93*

[Text] Beijing, September 3 (XINHUA)—China's forestry departments have used 245 million U.S. dollars in international aid.

According to the Ministry of Forestry, the World Food Program has provided 119 million U.S. dollars in aid to finance eight forestry projects during the past decade or more.

With some of the aid, about 210,000 ha of trees and 80,000 ha of grass have been planted.

The number of overseas-funded technical aid projects totals 120, involving 126 million U.S. dollars from the United Nations Development Program, the Canadian Government and other international sources.

The projects cover afforestation, forest protection, timber production and training.

An official from the ministry said overseas assistance has also helped improve China's forestry research and testing.

XINHUA Reports Adoption of 'Delhi Declaration' on Forestry

*OW0309115493 Beijing XINHUA in English
1137 GMT 3 Sep 93*

[Text] New Delhi, September 3 (XINHUA)—A 13-point "Delhi Declaration" was adopted here today in the first ministerial conference of the Forestry Forum for Developing Countries (FFDC).

In the declaration, the Third World countries called upon the western and international organisation to increase financial assistance under a definite time frame for conservation and protection of forests, while reiterating their right to use of forest resources in accordance with their national policies, priorities and strategies.

The declaration also pressed for restructuring of the global environment facility to sustain investment in the forestry sector in developing countries through transparent funding mechanism.

The three-day conference began here on September 1, and concluded today.

Environmental Agency Says Sewage Polluters To Pay

*OW1009152993 Beijing XINHUA in English
1352 GMT 10 Sep 93*

[Text] Beijing, September 10 (XINHUA)—Local governments will soon start collecting a fee on sewage pollution discharged into rivers, lakes and the sea even if the pollutants are within the official limits, the State Environmental Protection Agency (SEPA) announced today.

The new rule became effective a month ago and fee collection will begin on September 15. "It is meant to control the amount of industrial waste discharged into the country's water courses," said SEPA deputy director Wang Yangzu.

On each ton of industrial waste, local governments will charge 0.05 yuan per month if the pollutants do not exceed the limits. The fee will be 0.1 yuan on waste exceeding the limits, Wang told a press conference.

"The new rule also means a change in our policy," he said. "We now pay equal attention both to the amount of waste discharged and the density of its pollutants. In the past, pollutants were our only concern."

The rule applies to industrial enterprises, hospitals and other institutions and individual businesses, but schools, nurseries, kindergartens and homes of the aged are exempt from the fee, Wang said.

Local governments throughout China will collect an annual average of 500 million yuan in these fees, which will be used to support local environmental protection work.

A portion of the money will be specially earmarked to re-equip local pollution monitoring stations, Wang said.

The fee ranges from three to nine yuan for every 10,000 yuan in the production cost of paper-making, chemicals, food, machine building and textile industries which are responsible for the bulk of the industrial waste produced in China. "Surely that will not cause hardship to enterprises," Wang said.

According to a SEPA bulletin published earlier this year, industrial enterprises across China discharged 23.39 billion tons of waste last year, less than in 1991.

The bulletin classified 48 percent of China's river courses as polluted or heavily polluted.

National Conference To Announce Anti-Pollution Measures

*OW1009135593 Beijing XINHUA in English
1329 GMT 10 Sep 93*

[Text] Beijing, September 10 (XINHUA)—A series of economic measures to promote the prevention and treatment of industrial pollution will be announced at a national work conference in mid-October in Shanghai, a senior official at the State Environmental Protection Agency (SEPA) said today.

According to SEPA deputy director Wang Yangzu, one of the new moves calls for payment by those benefiting from environmental and ecological projects to those implementing them.

"When an area benefits from a reservoir, for example, the local government should pay people and governments in areas upstream for their work to keep the water free from pollution," Wang told a press briefing.

Also on the agenda of the second national work conference on prevention and treatment of industrial pollution are incentives for heavily polluting factories to move out of densely populated areas, and incentives for treatment of industrial wastes.

Industrial enterprises are responsible for about 80 percent of the country's pollution by waste gases, sewage

and solid wastes, and their treatment "has always been an arduous task," Wang said.

Prevention and treatment of industrial pollution are now all the more difficult as China is changing from a planned economy to a market economy, according to the official.

Industrial enterprises are being allowed more and more autonomy. Meanwhile, said Wang, the existing legal and administrative measures are not effective enough to make all of them pay sufficient attention to environmental protection.

"There are enterprises which seek quick economic gains at the expense of the environment," he conceded.

The Shanghai conference, the second since 1982, will devise ways of strengthening government control to tackle problems like this, Wang said.

REGIONAL AFFAIRS

ROK, Japan Sign Wastewater Treatment, Quality Control Pact

SK2808044493 Seoul THE KOREA TIMES in English
28 Aug 93 p 3

[Text] Korea and Japan signed a cooperative agreement for the joint development of wastewater treatment facilities, opening a new chapter in bilateral exchange of information on anti-pollution activities.

The Cooperative Agreement on Environmental Technologies for Improving Water Quality was signed between the National Environmental Institute of Korea and its counterpart in Japan.

The accord will activate a five-year joint research project for the development of various environmental technologies including small-scale wastewater and sewage treatment facilities.

Institute official said unlike in previous years, the agreement will bring about effective transfer of Japanese technologies for improving the quality of water which is one of the finest in the world.

Japan will dispatch related technical personnel here and cover all costs incurred in the procurement of materials and research activities for the five year period, they added.

"Korea has been faced with the financial and technical burden of developing water-treatment technologies and this agreement will effectively be able to address all related problems at hand," one official explained.

Aside from the treatment facilities, the agreement also calls for the introduction of system control technologies as well as equipment which is capable of forecasting the extent of water pollution.

With the development of new wastewater treatment facilities, the nation will be able to reduce the cost at which water is purified and supplied and make it possible to install them at low costs across the country, the officials said.

JAPAN

Army Dumped Poison Gas Bombs in Inland Sea in 1945

OW1308140893 Tokyo KYODO in English 1327 GMT
13 Aug 93

[Text] Kitakyushu, Fukuoka Pref., Aug 13 KYODO—The Japanese Imperial Army dumped tens of thousands of poison gas bombs into the Inland Sea soon after World War II, two former workers of the factory that made the bombs said Friday [13 August].

The factory produced poison gas bombs in huge amounts, which were recovered from depots in Yamaguchi Prefecture directly after the war and thrown

into the western part [Suo Nada] of the Inland Sea [Setonaikai], the two men told KYODO NEWS SERVICE in an interview.

Toru Kakumu, 74, was an inspector in Kitakyushu at the Sone Bomb Factory, which was a branch of the arms factory run by the army. Kakumu's colleague Misao Yamaguchi, 82, was in charge of bomb production itself.

They said they have decided to break their 48-year-long silence for fear that poisonous gas leaking from the corroding bombs could have a major impact on the maritime environment and harm people.

They are the first eyewitnesses to provide concrete evidence on the case, providing information ranging from production of the poison gas bombs to the final disposal of them into the sea.

Fishermen have long alleged that poison gas bombs were dumped off the Inland Sea coast of Yamaguchi Prefecture, but the prefectural government soon discontinued an investigation in 1972 citing lack of evidence, although mustard gas bombs were found on the seafloor.

"The testimony by the two men is very valuable," said Yoshiaki Yoshimi, professor of Japanese contemporary history at Chuo University in Tokyo.

"Although the Sone factory played an important role in the former Imperial Army's poison gas production, we still don't know much about the actual situation there," Yoshimi said.

The Sone factory filled bombs with several kinds of poison gas such as lewisite, prussic acid gas, and yperite mustard gas produced at the Tadanoumi Factory in Takehara, Hiroshima Prefecture, Kakumu and Yamaguchi said.

They said the bombs were packed into wooden cases and stored in pits at the abandoned Omine coal mine in mine, Yamaguchi Prefecture, where they remained until after Japan's surrender in August 1945.

The bombs were dumped into the sea over a six-week period from mid-November 1945, they said.

Under supervision of the U.S. Army, factory workers loaded the bombs on U.S. Army trucks, which transported them to the former national railway's Omine Station.

It is not yet clear to what extent the U.S. was involved in the dumping.

Reloaded onto freight trains the fatal cargo was transported to Ube Port, where boats took the bomb cases. The boats were joined by a crane ship off the coast, which unloaded the poison cargo.

The bombs were dumped into the sea in their wooden cases some 18 kilometers southeast of Ube at a depth of about 30 meters, the men said.

Fishermen from Yamaguchi, Fukuoka and Oita Prefectures still fish in the area with dragnets.

Kakumu and Yamaguchi said they did not know the exact number of poison gas bombs were thrown into the sea. The two said they had kept silent about the poison gas issue to save Japan's honor. But since there are fears that the yperite, which does not easily dissolve in water, could harm the environment and people, they decided to go public with their knowledge.

Mustard gas and similar poisonous gases used in chemical weapons cause the skin to blister, eat away at mucous membranes in the nose and eyes, and cause pulmonary edema or fluid to build up if inhaled.

The Sone plant was the largest of its kind in wartime Japan, employing some 1,000 people at the height of production. From its establishment in 1937 until the end of the war, an estimated 1.1 million poison gas bombs for artillery and mortars were made there.

Poison gas bombs are believed to have also been dumped off Shizuoka Prefecture's southern coast and into Beppu Bay, Oita Prefecture.

The government and the prefectural authorities nevertheless maintain that everything should be left "to the sea water's ability to clean itself." Scientists are divided over whether there is such a natural cleansing effect.

The Defense Agency sees no need to recover the bombs as long as it does not receive relevant requests from prefectures concerned, agency officials said.

But Keiichi Tsuneishi, professor of history of science at Kanagawa University, advocates a detailed survey on the locations and the scope of the dumping as well as recovery of the bombs.

"The poison gas is as dangerous as ever, and since the bombs were dumped in shallow waters they can't be left alone," he said.

Recession Reportedly Brings Drop in Pollution

OW2708122893 Tokyo KYODO in English 1117 GMT 27 Aug 93

[Text] Tokyo, Aug. 27 KYODO—Decreased economic activity, and not compliance with the nation's emission standards, is the main reason for large drops in nitrogen dioxide concentrations in the atmosphere in major cities, the Environment Agency said Friday [27 August].

The agency said its survey of nitrogen dioxide concentrations in Japan's major cities for fiscal 1992, which ended March 31, showed an increasing number of observation points met the standards set by the agency.

But agency sources said this is mainly due to decreased economic activity. They warned that air pollution remains a serious problem.

Among the observation points in 128 designated built-up or metropolitan areas, including Tokyo and Saitama and Chiba Prefectures—where severe restrictions apply to the volume of nitrogen dioxide from automobile exhausts—26.1 percent exceeded the environmental standard of 0.06 parts per million (ppm).

This was an overall drop of 18.7 percentage points from the previous year's figure.

Among observation points specifically set up to record automobile emissions, the percentage where nitrogen dioxide levels exceeded the standard was 54.7 percent, a drop of 19.8 percentage points.

In 45 designated cities and towns in Osaka and Hyogo Prefecture, nitrogen dioxide levels at 23.9 percent of the observation points exceeded the standard, an 11.4 percentage point drop over the previous year.

In the same area, levels at 52.6 percent of points specifically recording automobile emissions exceeded the standard, a 15.3 percentage point drop from the previous year's figure.

The agency sources said strengthened restrictions over emissions appeared to be one reason for the drop.

But they said the main reason was a big drop in the annual economic growth rate from the previous year 3.4 percent to 0.8 percent, and a consequent decrease in the volume of freight traffic to 1988 levels.

Environmental Legislators Begin Meeting in Tokyo

OW3008043593 Tokyo KYODO in English 0359 GMT 30 Aug 93

[Text] Tokyo, Aug. 30 KYODO—More than 40 legislators from Japan, the United States, Europe and Russia began a three-day meeting in the Diet, the Japanese parliament, in Tokyo on Monday [30 August] aimed at coordinating environmental legislation in their countries.

The legislators, members of the Global Legislators Organization for a Balanced Environment (GLOBE), will discuss a package of proposals for incorporation in their nations' laws, focusing on the prevention of damage to climatic systems and the preservation of biodiversity.

The seventh GLOBE international general assembly brings together nine legislators from the European Parliament, nine from the U.S. Congress, six from the Russian parliament, and more than 20 from the Japanese Diet. It is the second GLOBE general assembly to be held in Japan.

In a keynote address to the assembly, GLOBE International President Takashi Kosugi, a Liberal Democratic Party member of the House of Representatives, told members that economic problems in all member countries threaten to restrict funds for environmental conservation.

"It is time to recognize we cannot continue our economies as we have till now," Kosugi said.

"We must develop the economic art of doing good business without consuming our limited resources."

Kosugi said that the duty of the assembly during its three-day meeting, will be to ensure that agreements

reached at the United Nations-sponsored Earth summit in Rio de Janeiro in June last year are fully implemented.

He noted that more than a year has passed since the summit produced two key conventions on climate change and biodiversity, yet neither has been ratified by sufficient countries to enable them to be put into effect.

"It is our duty as politicians to put into practice what has been agreed, namely to achieve sustainable development," Kosugi said.

Seventh GLOBE Conference Opens in Tokyo

OW3008095193 Tokyo KYODO in English 0910 GMT 30 Aug 93

[Text] Tokyo, Aug. 30 KYODO—Legislators from several of the world's major industrial and polluting nations failed to reach consensus on Monday [30 August] over fiscal and political measures to limit emissions of global warming gases.

Legislators from Japan, the United States, Russia and the European Parliament, at the International General Assembly of the Global Legislators Organization for a Balanced Environment (GLOBE), failed to reach the consensus during their first day's debate on strategies to cope with climate change.

Globe international members meet twice a year to coordinate environmental legislation in their countries, but on the first day of their three-day seventh general assembly in Tokyo, most agreed that the introduction of a carbon tax on the consumption of fossil fuels is one of the most difficult strategies facing their governments.

More than 40 participants at the meeting were at least unanimous that global warming gases are increasing and pose a long-term danger to the environment.

Globe Russia President Mikolay Vorontsov said population pressure justifies an international program for the development of efficient industrial uses as biogas of the large volume of methane gas from rice fields and human and domestic animal excrement.

Yury Moskvich, another Globe Russia member, said Siberia's 459 million hectares of forest bind 2-3 percent of the carbon dioxide annually released into the atmosphere, but the loss to logging and fires of up to 900,000 hectares of Siberian forest annually could lead to an "ecological nuclear bomb."

Portuguese parliamentarian and Globe EC Vice President Carlos Pimenta warned that the world now has 2-3 percent more facilities emitting carbon dioxide (CO2) than in 1990, but no concrete measures for pegging emissions to 1990 levels as agreed to in the climate change convention drawn up in June last year at the Earth Summit.

But differences surfaced when debate moved to ways to limit the emissions of global warming gases, including the introduction by governments of a "carbon tax" on fossil fuels.

Tadatosh Akiba, a Globe Japan member of the Social Democratic Party, said that because successive Japanese administrations have encouraged the construction of new nuclear power stations as an alternative to coal and oil, there is little incentive to introduce such a tax.

Jim Scheuer, Globe founding president and a former U.S. Congressman, said 12 years of administrations under the Republican Party presidents of Ronald Reagan and George Bush has left Americans convinced that taxes are "evil."

But Globe EC member and British Parliamentarian Tom Spencer predicted a carbon tax would be in place in Europe "within two years."

"...this is an area where we will all have to hang together or we will all be hung separately," Spencer said.

The legislators will meet again on Tuesday and Wednesday for debate on climate change and biodiversity.

Ministry To Form 'Environmentally Friendly Farm Policy'

OW0109082893 Tokyo KYODO in English 0738 GMT 1 Sep 93

[Text] Tokyo, Sep 1 KYODO—The Agriculture, Forestry and Fisheries Ministry will formulate an environmentally friendly farm policy with the help of people involved in the industry, ministry officials said Wednesday [1 September].

The ministry will create committees to tackle environmental issues relating to farming in cities, towns and villages, involving consumers and farm-related distributors as well as farmers.

The committees will be set up in 376 regions next year, with the number expanding to 1,128 in three years, the officials said.

Each committee, comprising about 15 members, will study ways to reduce use of chemicals and encourage "rotational" farming, in which crops are alternated on a plot of land to preserve the soil.

Guidelines for the policy are being formulated at a prefectural level.

This reflects the ministry's judgment that such guidelines will not work effectively without cooperation from the grass roots because crops differ from one area to another, even within the same prefecture.

Tokyo Plans To Host Seminar on Pacific Ocean Pollution

OW0209100693 Tokyo KYODO in English 0904 GMT 2 Sep 93

[Text] Tokyo, Sep 2 KYODO—The Environment Agency plans to sponsor an international seminar next year on preventing pollution of the northwestern Pacific ocean, agency officials said Thursday [2 September].

Japan will formally announce the plan at the second Northeast Asian Conference on Environmental Cooperation in Seoul from September 15 to 17, they said.

The agency will call on countries along the coasts of the northwestern Pacific, including China, Japan, North Korea, South Korea and Russia to participate in the seminar, the officials said.

The five countries and the United Nations Environment Program are working on an action program to prevent environmental pollution. The planned seminar would discuss the program, they said.

Regional action programs on research, monitoring, regulation and cooperation on preventing pollution have been already drafted for 11 regions, including the Mediterranean Sea and the Red Sea areas, they said.

The government will propose holding the seminar simultaneously with the third Northeast Asian Conference on Environmental Cooperation scheduled for next summer, they said.

The first conference was held in October last year in Niigata, on the Sea of Japan, with delegates from China, Japan, Mongolia, Russia and South Korea attending.

International Conference Planned for Promotion of Whaling

OW0109034193 Tokyo KYODO in English 0320 GMT 1 Sep 93

[Text] Tokyo, Sept. 1 KYODO—An international conference on promoting whaling will take place in Washington on September 15, Japanese Government officials said Wednesday [1 September].

The unusual meeting—the U.S. is antiwhaling—will set the tone of the next annual conference of the International Whaling Commission (IWC) in Mexico in May, the officials said.

A U.S. nongovernmental organization, the Science and Environmental Policy Project, will sponsor the meeting. Those attending will include Sen. Ted Stevens, a Republican from Alaska, where whaling is allowed to help preserve the culture of native Eskimos.

Whaling for traditional preservation is one of two exceptions under the IWC's ban on whaling along with whale harvests for scientific research.

Other participants in the half-day program also include Cambridge Professor Dr. Philip Hammond, former chairman of the Scientific Committee of the IWC, who resigned in protest after the IWC disregarded the committee's unanimous recommendations for allowing the limited harvesting of nonendangered species of whales.

The officials said the upcoming conference will see a confrontation between the United States and Norway, which relaunched commercial whaling in defiance of an agreement reached at the IWC's last meeting in Kyoto in May to extend the global ban on whaling for another year.

Washington is considering economic sanctions against Norway in accordance with its 1962 Pelly Amendment, which allows the government to ban imports of fish and other products from whaling nations.

The U.S. Government is expected to report to Congress by early October on what action it will take against Norway.

Tokyo, one of the world's strongest supporters of whaling and biggest consumers of whale meat, is closely watching the meeting.

Japan is allowed to harvest whales ostensibly for research purposes, but most of the meat actually ends up in restaurants.

Environment Agency To Compile Wetland Use Manual

OW0409083493 Tokyo KYODO in English 0737 GMT 4 Sep 93

[Text] Tokyo, Sept. 4 KYODO—The Environment Agency will compile guidelines for the wise use of wetlands and a list of endangered birds in Asia as part of a five-year project starting next April, agency officials said Saturday [4 September].

The agency asked the government to earmark 38 million yen in official development aid for the project from the fiscal 1994 budget.

The project was inspired by a conference of signatories to the Ramsar Convention on Wetlands, which was held in Kushiro, Hokkaido, in June.

Delegates attached major importance to the preservation of tidelands, mangrove swamps and other wetlands to guarantee the survival of their unique waterfowl and characteristic flora.

The guidelines for wetland management aim at promoting the conclusion of bilateral treaties among Asian countries for the protection of migratory birds, and will focus on river and lake marshes in South Korea and Thailand, the officials said.

The project will include a survey of present wetland management and assess the impact of human interference to map out comprehensive preservation measures tailored to Asian needs.

While the International Union for the Conservation of Nature and Natural Resources (IUCN) has compiled lists of endangered birds in Central and Latin America as well as Africa, no such list exists for Asia, according to the agency.

The IUCN estimates that about 1,000 of the 9,000 species of birds worldwide are threatened with extinction.

The agency plans to establish the endangered species list for Asia in cooperation with experts from all countries concerned and through data collection and on-the-spot surveys of bird habitats ranging from the Russian Far East to Southeast Asia and New Guinea.

Matsushita To Market CFC-Free Refrigerators

*OW1009075293 Tokyo KYODO in English 0744 GMT
10 Sep 93*

[Text] Osaka, Sept. 10 KYODO—Matsushita Electric Industrial Co. said Friday [10 September] it will become the first Japanese home appliance maker in November to market a refrigerator which does not use ozone-depleting chlorofluorocarbon (CFC) gases.

The world's leading consumer electronics firm said the new model, NR-C31F1, priced at 158,000 yen, will be marketed in Japan from November 25.

In the product, CFC 12 is replaced by HFC-134A (hydrofluorocarbon) as a refrigerant and CFC 11 is replaced by HCFC-14B (hydrochlorofluorocarbon) in the insulation foam, the Osaka-based company said.

The company said that in the beginning it plans to manufacture 5,000 units of the new model per month.

The company said it will subsequently eliminate the use of CFCs in all other refrigerators.

Under an international environmental agreement, Japan and other signatory nations agreed to stop producing CFCs by the end of 1995.

In line with the accord, the Japan Electrical Manufacturers Association announced in August that each member will start producing CFC-free refrigerators in 1994 and complete the switch to alternative substances by the end of 1995, the company said.

SOUTH KOREA

UN To Hold Meeting on Transferring Environmental Technology

*SK2308031093 Seoul YONHAP in English 0239 GMT
23 Aug 93*

[Text] Seoul, Aug 23 (YONHAP)—A working-level conference to discuss the transfer of environment-related technology from advanced countries to developing countries will be sponsored by the United Nations early next year, Foreign Ministry officials said Monday.

The UN Commission on Sustainable Development is responsible for the conference, which 20 countries will attend. Two of the countries will both represent 10 regions.

A preparatory meeting November 2-4 in Colombia will discuss specific ways of transferring environment technology, economic measures and policies for boosting technology transfer and forming a network for cooperation on technology transfer.

The South Korean Government's position is that the means of transfer should differ according to the owner—whether a public organization has the technology or a private company.

Technology owned by a public organization should be transferred without condition and smoothly between

governments, which should give incentives to technology owning companies to support transfer, a ministry official said.

"The working level conference has a meaning in that it is the first channel to boost environment technology transfer between advanced countries and developing countries," the official said.

Seoul, Moscow To Negotiate Pact on Protecting Birds

*SK0409073693 Seoul YONHAP in English 0609 GMT
4 Sep 93*

[Text] Seoul, Sept. 4 (YONHAP)—Seoul and Moscow will negotiate an agreement on protecting more than 330 species of migratory birds this month, the Foreign Ministry said Saturday.

A draft that Seoul is to propose to Moscow lists 337 kinds of birds that migrate between the two countries for protection and specifies special protection measures for birds like the egret that face extinction, import-export control of animals and plants dangerous to these birds and exchange of research and information.

Regional neighbors have been urging South Korea to sign the agreement because it lies in the middle of the birds' migratory path and because heavy water pollution is killing the birds.

The agreement is also a part of the Rio declaration on environmental protection produced last year.

Scientists To Study Resource Depletion in Okhotsk

*SK0409080593 Seoul YONHAP in English 0613 GMT
4 Sep 93*

[Text] Seoul, Sept. 4 (YONHAP)—South Korean and Russian marine resource scientists will meet September 21-23 to determine whether South Korea and other countries can resume pollack fishing in the Okhotsk Sea although Moscow claims mass depletion and announced a unilateral moratorium, the Foreign Ministry said Saturday.

The scientists will meet in Vladivostok before a multi-lateral meeting among South Korea, Japan, Poland, China and Russia in late October on resumption of fishing.

In April, Russia unilaterally announced a ban on ships from the four countries entering the Okhotsk to catch pollack although the area is in international waters.

South Korea netted 200,000 tons of pollack from the Okhotsk last year and Russia's unexpected ban virtually cut off the supply. The two countries agreed on objective, scientific research to study whether resource depletion is reaching a dangerous level, and Seoul said it will reduce its catch by 25 percent until further agreement with Russia.

Meanwhile, a separate fisheries meeting is slated for Oct. 11-16 in Seoul to set a pollack fishing quota for Russian economic waters for next year.

Moscow promised a 150,000-ton quota for Seoul for 1992 but it was annulled when the two sides disagreed on the fishing fee.

PHILIPPINES

WHO Finds 'Potential Risks' Posed by Pollution of Subic

HK3008044093 Manila MANILA BULLETIN
in English 30 Aug 93 p 3

[Report by Carlito Pablo]

[Text] The World Health Organization has found potential risks to health and the environment due to pollution caused by American military operations at the former Subic Naval Base. The findings were contained in a report prepared by WHO consultants Daniel Cramer and Richard Graham who conducted a fact-finding mission in Subic last April 17 to May 9 on a request by the Department of Environment and Natural Resources.

The consultants said "clearly" a number of areas or operations have "considerable pollution potential" like the ship repair facility which involved a range of heavy engineering operation and sandblasting. "Industrial wastewaters, untreated sewage and polluted storm water drains all discharged to Subic Bay, mostly without treatment," they said.

The WHO mission also noted that landfills in Subic were used for a variety of wastes, including hazardous waste materials. Other sites with potential threats to health and environment are those areas where chemicals like pesticides, fuel, herbicides, chlorinated solvents and explosives were used or stored, it said. The report called for the immediate conduct of a more detailed sampling and analysis program since the findings are initial in nature. It said a more thorough assessment in Subic which will cover near-surface and soils, groundwater, sediment in adjacent waterways and Subic Bay could cost \$600,000.

"Overall, the site does not appear to have obvious widespread pollution problems which would undermine its future development and use. Past and present operations appear to have been generally conducted with reasonable standards of care," it said. The report stressed, however, environmental conditions in Subic must be fully ascertained before site development proceeds and steps taken to ensure that investments are "contingent" on acceptable environmental quality standards.

The Philippine government wants to convert the former American military facility into a world-class free port. It is currently managed by former Olongapo City Mayor Richard Gordon, chairman of the Subic Bay Metropolitan Authority.

The United States government has stressed it has no liability in funding a cleanup of its former bases in the country since this is not stipulated in the bases agreement.

Prof Roland Simbulan, UP chairman of the Nuclear Free Philippines Coalition, said the WHO report confirms initial studies indicating ecological damage caused by the unhampered operations of American forces not only in Subic but also in Clark Air Base.

TAIWAN

Residents Facing Deteriorating Environment

OW3008091193 Taipei CNA in English 0801 GMT
30 Aug 93

[Lillian Lin]

[Text] Taipei, Aug. 30 (CNA)—Taiwan is paying too high a price for its rapid urbanization and industrialization. The over 20 million residents on Taiwan, especially those in urban areas, live in cramped quarters, breathe polluted air, drink polluted water and face a daily barrage of disquieting noise.

According to a survey conducted by the Directorate General of Budget, Accounting and Statistics [DGBAS], at the end of 1992, Taiwan's population stood at 20.75 million, with an average population density of 576 people per square kilometer.

In urban areas, however, the population density averaged more than 2,700 people per square kilometer.

In Taiwan's overpopulated cities, pollution caused by mountains of garbage, automobile and motorcycle exhaust and numerous construction undertakings wears on even the most hardy of residents.

And there is no end in sight. The DGBAS survey showed the number of automobiles and motorcycles increased by 1.3 million in 1992, to reach 13.87 million.

Although the industrial parks have accommodated many pollution-making industries, small plants producing noxious waste emissions are common in residential areas.

Energy consumption in 1992 totaled 57,514,000 kiloliters of gasoline equivalent, up 5.59 percent over 1991. Each additional liter of gasoline burned contributes to the already sickening air and water pollution.

On top of it all, garbage disposal remains a major problem. Last year, Taiwan created nearly 8 million metric tons of garbage, in addition to innumerable tons of waste soil from construction sites.

Taiwan sacrificed its once pristine natural environment for economic development. While both the government and the people are becoming more and more conscious of their deteriorating living standards, environmental protection efforts can hardly make up the losses.

Taipei Refuses Comment on Rhino Horn Trade Charges

OW'0109152993 Taipei CNA in English 1417 GMT
1 Sep 93

[Text] Taipei, Sept. 1 (CNA)—The Council of Agriculture (COA) Wednesday [1 September] refused comment on charges made by a British group that Taiwan has failed to stamp out the illegal rhino horn trade.

According to reports from London, Britain's Environmental Investigation Association (EIA) will file charges against Taiwan at a meeting of the Standing Committee of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) next week in Brussels.

At the meeting, CITES member nations will decide whether to impose sanctions on Taiwan, Mainland China, South Korea and Yemen, countries that have come under fire from the international community for failing to eliminate rhino horn trade.

According to the EIA, 19 out of the 24 Chinese herb shops they visited in Taipei offered rhino horn powder for sale. The EIA videotaped the operation.

COA officials stressed the unfairness of the EIA only targeting Taiwan, citing Taiwan's efforts to protect endangered animals. They urged the Hong Kong Government to crack down on rhino horn trade in Hong Kong as well, because all rhino horns in Taiwan go through the British colony first.

Official Urges 'Reasonable' U.S. Decision on Rhino Trade

OW'0509030693 Taipei China Broadcasting Corporation News Network in Mandarin 2300 GMT
3 Sep 93

[From the "Hookup" program]

[Text] An official of the U.S. Department of Interior said that barring unexpected developments, Secretary Bruce Babbitt on 3 or 4 September may, in accordance with the (?peril-point) amendment, designate Mainland China and Taiwan as countries endangering the survival of rhinos and tigers, which are protected under the international convention. According to the (?peril-point) amendment, once a country is designated as one that endangers wildlife protected under the international convention, the interior secretary must decide on the form of sanction against it within 60 days.

A high-ranking Taiwan representative in the United States has confirmed that the U.S. secretary of interior will make such a designation on 3 September. He said: Our government has made great efforts in this regard, and the U.S. side also believes that we have good protection laws. Regrettably, there is evidence of the sale of rhino horns and tiger bones.

The U.S. Interior Department official did not want to reveal whether or not the department had decided on the

form of sanction. Taiwan personnel in the United States pointed out that if Taiwan takes stronger measures to ban the sale of rhino horns and tiger bones and dispel the doubts of international environmental protection groups, it is still possible to avoid retaliation by Washington or other Washington Convention signatories. He pointed out: The U.S. side has informed us that they are most concerned about the effectiveness of our measures banning the sale of rhino horns and tiger bones.

In response to this matter, the Ministry of Economic Affairs' Board of Foreign Trade [BOFT] pointed out on 3 September that obviously, if the United States decides to boycott certain products of ours before it even looks into the facts, it will be violating the GATT provisions. However, the BOFT also pointed out that because our country is not yet a GATT member, it will be difficult for us to argue with the United States within the GATT framework. Besides, because we are not a UN member, we will be unable to ask the Washington Convention to make a ruling on this issue. Thus, if the United States decides to impose sanctions on us, we will have no recourse.

The BOFT official took great exception to the United States' frequent use of the threat of retaliation. He pointed out that with the exception of the United States, there is no country in the world which bans import or export of products from another country by law or imposes other economic sanctions on the ground of environmental protection.

Hsiao Wan-cheng [Vincent Siew], chairman of the Council for Economic Planning and Development, also pointed out: It is very inappropriate for the United States to bear down menacingly on us and retaliate against us on the issue of rhino horns without prior consultation or investigation. He hoped that the United States will not submit itself to pressure and will make distinction between right and wrong.

However, an official of the Executive Yuan Council of Agriculture [COA] expressed optimism on whether or not the United States will take retaliatory trade measures against us. (Huang Ye-chieh), head of the COA Department of Forestry, pointed out: All the reports so far are one-sided stories told by environmental groups through the international media. The fact is that we have lines of communications with the U.S. Department of Interior. We have advised the United States of the measures taken by us regarding the six major demands it put forward in mid-June. The official believed that the United States will make a reasonable decision. COA Chairman Sun Ming-hsien also said that the council has not received any notification, directly or indirectly, indicating that the United States is considering economic sanctions against us on the ground of the rhino horn trade. He believed that the United States will make a careful, objective decision. After viewing the video made by Britain's Environmental Investigation Association, Chairman Sun Ming-hsien said: The video clearly shows rhino horn trade on the Chinese Mainland and Hong Kong. The portion on Taiwan is very unclear and

fragmentary. It cannot prove beyond doubt that rhino horns are being sold by Taiwan's traditional Chinese medicinal herbs traders. He urged environmental groups abroad to provide correct information and evidence and not to smear Taiwan's image.

Wildlife Protection Task Force To Be Formed

*OW0409203093 Taipei CNA in English 1350 GMT
4 Sep 93*

[Text] Taipei, Sept. 4 (CNA)—In response to accusations from world conservation bodies that it is not sufficiently policing the sale of products derived from endangered species, Taiwan on Saturday [4 September] announced it will form a wildlife protection and interdiction task force.

The Council of Agriculture [COA] said it had been authorized by the Executive Yuan to join forces with agriculture and education agencies and the police in cracking down on the sale of rhino horn, tiger bone and related products. COA vice chairman Ling Hsiang-Nung will be the convenor of the task force, a COA official said.

According to Jacques Berney, deputy secretary-general of the Washington-based Convention on International Trade in Endangered Species (CITES), two British conservation groups have called for the international community to impose trade sanctions against Taiwan, Mainland China, Yemen and South Korea for allegedly allowing rhino horn trade.

But Li San-Wei, deputy director of the COA's Forestry Department, said that because Taiwan has been barred from joining CITES and other international conservation organizations for political reasons, it cannot properly communicate with the groups and thus clarify misunderstandings.

Meeting Pledges More Stringent Wildlife Protection Measures

*OW0809152093 Taipei CNA in English 1401 GMT
8 Sep 93*

[By Benjamin Yeh]

[Text] Taipei, Sept. 8 (CNA)—Taiwan on Wednesday [8 September] pledged more stringent measures to fight smugglers and vendors of endangered species shortly after it narrowly escaped being slapped with trade sanctions by the Convention on International Trade of Endangered Species (CITES).

The Council of Agriculture (COA) agreed on the measures during the first supraministerial meeting convened by the cabinet-level wildlife conservation task force Wednesday morning. Representatives of 15 government agencies participated in the meeting.

Local governments will be asked to step up spot checks where illegal trade in wildlife is suspected, and people

providing tips that lead to the seizure of illegal bounties will be rewarded with more money than currently on offer.

Police officers attending the meeting guaranteed closer cooperation with customs and coast guard units to combat smugglers.

COA chairman Sun Ming-hsien, while warning that the nation's image has been damaged, stressed that "the new measures mark the dawning of a comprehensive war against the illegal trade of animals."

The meeting came less than one day after a CITES committee voted 3-3 to postpone trade sanctions proposed by Britain's environmental investigation agency which claimed Taiwan has only perfunctorily cracked down on the illegal trade of rhino horns and tiger bones.

CITES is likely to send an investigation team to Taipei by November to check on Taiwan's efforts. The resultant report would serve as the basis of any future proposed trade sanctions.

THAILAND

Pollution Control Zone Urged To Protect Phong River

*BK1308012193 Bangkok BANGKOK POST in English
13 Aug 93 p 6*

[Text] Khon Kaen—Residents, academics and non-governmental organisations yesterday emphasised their demand for the Phong River to be designated a pollution control zone, with a committee comprising local groups to protect the river basin.

At least three serious incidents have damaged the Phong River in two years: The first involved the Khon Kaen sugar mill which "accidentally" released a huge amount of molasses into the river and the second occurred when the Phoenix pulp and paper factory was blamed for the river's chronic pollution problem and releasing the carcinogen, dioxin.

The authorities have just ordered the two-month suspension of a flour factory owned by influential tycoon Charoen Phatthanadamrongchit, following the latest incident which caused the river to become heavily polluted. The factory will resume production on October 8.

"We don't want to point accusing fingers against any factories any longer. But the river has been chronically polluted. We think it's necessary that the river basin be immediately protected and that it be declared such a zone," said Assoc Prof Wannasi Bunyaratthaphan of Khon Kaen University's Environment Department.

Assoc Prof Wannasi, who chaired a meeting at the university's research and development institute, said it reached a consensus on the idea of a pollution control zone although the Science, Technology and Environment Ministry earlier voiced disagreement.

"The river was badly ruined in the latest incident. The level of chemical oxygen demand (COD) in the river is

measured at more than 1000 milligrammes per litre. The electrical conductivity, which indicates the quantity of chemical substances, also exceeds the standard with more than 1,000 microsemen/litre found. It's a crisis for the Phong River."

The university encourages public participation on the issue.

"A committee comprising academics and state authorities has been appointed but this is not enough. We need another committee which will include local people since the problem of the river has far-reaching effects, not only on the people in Khon Kaen, but also on those living in Maha Sarakham, Roi-et, Yasothon and Ubon Ratchathani. People in those provinces should be included on the proposed committee," Assoc Prof Wannasi said.

"We will propose the idea of a pollution control zone and of the river committee to the Prime Minister's Office for consideration," she said.

Khon Kaen University Rector Prof Dr Wanchai Wattanasap said the Phoenix factory refused to accept the result of a study by the Pasteur Institute which showed that the water released from the plant contained dioxin.

"I was approached by Phoenix president Sombun Nanthaphiwat recently. He said the company wanted another test to confirm the study. He also believed that dioxin may not come from the pulp alone."

Dr Wanchai said it would be better if the university had equipment and skilled personnel to test for dioxin in the river.

"The equipment costs about 10 million baht."

Assoc Prof Wannasi said the university was not opposed to the company's wish to have another test as long as the process was transparent.

"We also proposed that Phoenix test the water in the areas which the Provincial Waterworks Authority uses as the source of tap water."

Legal expert Charoen Khampirapa criticised weak state mechanisms that made it possible for the industrial sector to exploit the public.

"The existing state mechanisms absolutely fail. They never ensure that the river will not be polluted again," he said.

The designation of the river basin as a pollution control zone should serve as a new way to tackle the problem, he said.

Tougher Measures Urged To Curb Industrial Pollution

BK1108015593 Bangkok THE NATION in English
11 Aug 93 p A6

[Editorial: "Tougher Measures Needed To Curb Industry's Pollution"]

[Text] The ugly sight was very familiar: a large number of fish were belly up in the Nam Phong river. All were victims to polluted water discharged from industrial plants in nearby areas by operators who show complete disregard for the adverse effects both on the environment and on the livelihood of people who have been relying on water supply from the river for generations.

The callousness of industrial operators who believe that they have the right to contaminate rivers and waterways should be dealt with in a harsh manner. A simple reason is that their investment for profit must not hurt those who have no opportunities to share such benefits arising from their operations.

Our rivers and waterways, the lifeblood of rural farmers and villagers, are being polluted at an alarming rate. Worse, the water supply has gone down drastically due to the equally rapid deforestation caused by the same callousness of illegal commercial ventures.

Future generations of this country do not have promising prospects when natural resources are plundered by the present generation so driven by greed. Water is irreplaceable. It can be replenished only by rainfall which is becoming sparse as we destroy jungles and forests. The life cycle of nature is being disrupted, raped and devastated by selfishness.

How many times have we heard about the predicament and sufferings of the Nam Phong villagers who faced health hazards when they could no longer depend on the water from the polluted Nam Phong river. Nobody—be they government officials or industrial operators—has ever stood up to claim responsibility.

When dirty hands were caught, there was an immediate outcry for leniency and relaxation of stringent regulations with a promise to rectify whatever faults there were. Our officials easily succumbed to their plea, fearing that any harsh measures would hurt the investment climate.

Who cares about polluted nature and the villagers?

No money, no matter how much, can ever compensate for the sufferings of the villagers and the devastated environment.

If industrialists believe that treated water, though with a strange colour and putrid smell, is safe, they should assure the villagers by either swimming or dipping in the water for half an hour. If they think that the water is safe for consumption, they can boil it and use it for the same purpose in their companies.

The water in Nam Phong river, which had been free from industrial contamination from time immemorial until recent years, must remain so without any waste water—treated or otherwise—discharged from industrial plants. This country must not welcome any industrial investment project if we have to sacrifice our environment and the safety of tens of thousands of rural population and farm animals.

We must not pay too high a price for industrial plants, benefit-ting only a handful of people, at the expense of local villagers who may happen to earn only meagre wages from their cheap labour.

Nam Phong is not the only river now being polluted by industrial and commercial ventures. Mae Khlong, Pasak, Tha Chin, Nakhon Chaisri and many others have been in the news from time to time whenever industrial plants used them as sewers for waste water. Chao Phraya river, this country's main lifeblood, is almost in a similarly helpless state despite active campaigns to reverse the negative trend.

The authorities concerned—preferably the government—must wake up from their slumber, negligence, indifference, or whatever the case may be to deal swiftly with industrial pollution. We can build thousands of industrial plants or more, but can we recreate a river ... even to replace a polluted one?

VIETNAM

Slash and Burn Farming Depleting Son La Forests

BK0409072993 Hanoi VNA in English 0657 GMT
4 Sep 93

[Text] Hanoi VNA Sept. 3—Recent years have witnessed much progress and great changes for the better in the northwestern mountain province of Son La.

Along the main road from the Moc Chau Plateau upward, new building have sprung up, as well as in small towns in lowlands. Many stilted houses now have tile roofs replacing the traditional thatched roof.

Food, household utensils, and other consumer goods, even expensive electronic goods such as hi-fi radio cassettes are on sale in many places.

However, some changes have worried people a lot: vast forests including primeval ones in the province are being destroyed, mainly by ethnic minority people doing slash-and-burn farming.

Over the past 20 years, Son La has lost about 40,000 ha of forest, accounting for 3 percent of tree cover in the

province. Moreover, slash-and-burn farming has caused more than 1,400 forest fires.

A survey conducted in 1973 showed that the province had more than 164,000 ha of forest, but the area has shrunk to about 124,730 ha, mainly poor and young forests. There remains only 10,000 ha of good timber. On average the province is deprived every year of nearly 700ha. In 1992 alone, it lost as much as 1,191 ha.

At many places tree cover accounts for only 6 percent of the natural area. Many are also short of water, and food crops in the lower parts of the province are always unstable.

The population meanwhile has increased to 700,000 from about 300,000 20 years ago, at a birthrate of 2 percent. Most of the migrants from overpopulated areas in lowlands have settled in inter- district and inter-provincial road junctures convenient for transport and goods exchanges while remote mountain areas are populated only by ethnic minority people, such as the h'mong and the dzao. In recent years, these people have burnt forest for food cropping.

People in some districts now grow sugar-cane. This brings good money but has a very bad side effect: Planters will need to process their crops and will therefore cut down more trees for firewood.

According to the chairman of the people's committee of Son La Province, continuing logging and slash-and-burn farming have combined to worsen the socio-economic situation.

Now, alongside efforts to resolve the food problem, Son La tries hard to preserve the present forest cover.

It encourages tree planting by allotting forest lands on contract to each farmer household and each worker at state-owned plantations.

On that basis people have begun turning their allotments into farms and orchards. Some 5,000 such households are now doing quite well.

The authorities also deal more severely with violators of forestry regulations. Last year they brought to trial people responsible for two major forest fires. This had a good effect on public awareness.

ALBANIA

German Experts Inspect Condition of Expired Pesticides

AU0409160093 Tirana ATA in English 0831 GMT
4 Sep 93

[Text] Tirana, September 4 (ATA)—A group of German experts, accompanied by specialists of Albanian Ministry of Health and Environmental Protection, went to the place where the expired pesticides a German firm sent to Albania in the form of aid a year ago are accumulated. The pesticides are in the centre of agricultural supply in the city of Shkoder and in the international railway station of Bajze.

German experts took interest in the actual state of the expired pesticides which fill 17 wagons, they made inventories of their quantity and assortment, took photos, the numbers identifying each wagon and asked for the indices that have accompanied pesticides to Albania.

Some peasants of the zone near the railway station have used the containers of pesticides for other purposes, which presents a danger for the people and the environment. The German experts met also with the director of the railway station and asked him if there is any obstacle to take the pesticides back through railway due to the embargo against Serbia and Montenegro.

After they received enough information on the state of pesticides, the German group said they will make known the situation to the German Government and will help solve this problem.

BULGARIA

Parliament To Debate Environmental Bills in September

AU1108051593 Sofia BTA in English 1415 GMT
10 Aug 93

[Text] Sofia, August 10 (BTA)—The environment minister will ask parliament to devote a week to environmental legislation in September.

The Environment Ministry has drafted six bills, four decrees and six ordinances and has fulfilled its law-making programme for the first half of 1993, officials told a briefing at the Environment Ministry. The bills treat air pollution, water, waste, medical plants and noise. The Committee on Geology and Mineral Resources has moved a bill on mineral deposits use and protection, coordinated with the Environment Ministry.

"The bills on protected territories and the sea have been moved in parliament but regrettably are still waiting their turn," Environment Minister Valentin Bosevski said today. "For this reason I'll ask parliament this autumn to devote a week to environmental law-making," he said.

The ministry will also draft a bill on biological diversity, the first of its kind in this geographical area, Mr.

Bosevski said. He said Bulgaria can not be regarded as a civilized state without such a law.

The Environment Ministry and the extra-parliamentary Green Party today voiced views on two schemes, to upgrade and complete the operative airport in Sofia, or, alternatively, build a new one near the village of Krivina near Sofia. The government has the final say in this matter.

The Environment Ministry Supreme Expert Board approved the Krivina project, as more environment-friendly, Environment Minister Bosevski said at press conference today.

It is a bad idea to build a new airport at the same location as the old one, Green Party officials today told a scheduled press conference. They said this would be "another luxury patch" engulfing huge funds.

A Bulgarian-U.S. environmental action project, the first in this country, was launched in Troyan (northern Bulgaria), after the Troyan Municipality and an American environmental institute in Vermont established cooperation a few months ago, the BTA correspondent there reports.

Bulgarian and U.S. experts will address issues such as drinking water, new water sources, the prevention of air pollution and forest clearing.

The sides will set up an environmental education and information centre and open the first Bulgarian environmental school in Cherni Osum (near Troyan).

CZECH REPUBLIC

Citizens Becoming More Satisfied With State of Environment

AU1108141093 Prague CTK in English 1815 GMT
9 Aug 93

[Text] Prague August 9 (CTK)—Czechs' satisfaction with the state of the environment has grown slightly, according to a nationwide poll of almost 900 people carried out during the beginning of July by the Institute for Public Opinion Research (IVVM).

Thirty-three percent of those polled were satisfied with their immediate environment, 28 percent said they were semi-satisfied, 28 percent that they were not satisfied. The proportion of completely and mostly satisfied respondents has grown from 19 percent in 1990 and 25 in 1992 to 33 percent in this latest poll. The numbers of those generally unsatisfied have fallen similarly.

The results are heavily dependent on region. Most unhappy were those polled in North Bohemia (61 percent), which is heavily polluted due to thermal power plants, and Prague (41). Close to half of those polled from Moravia indicated that they were mostly satisfied.

Respondents older than 60 were less dissatisfied with the environment they live in than other age groups.

Respondents considered problems with air and water pollution most urgent. Since 1990, the ozone hole has gained the most in urgency, likely because of experts' warnings lately that the harmfulness of the sun's rays is directly related to that.

Responses related to air and water pollution were spread out evenly among socio-demographic groups. Less older people, though, were as worried about the ozone layer, and were more often than other age groups concerned with the worsening quality of farmland. Somewhat surprising was an indication that citizens of smaller towns were slightly less concerned with this problem than were city dwellers, and more often expressed concerns over solid waste disposal.

NKU Official: Less From 1993 State Budget for Environment

*AU208125293 Prague CTK in English 1303 GMT
10 Aug 93*

[Text] Brno August 10 (CTK)—In the state budget this year there is less expenditure on investment in ecology and the water industry compared to last year, Zdenek Smelik, a member of the Supreme Inspection Office (NKU), said today.

Speaking at a press conference for the Christian and Democratic Union-Czechoslovak People's Party (KDU-CSL), Smelik said last year's figure was over 12 billion crowns (400 million USD), compared to this year's 8.3 billion (277 million USD). Although a further three billion had been budgeted by the State Environmental Fund, it is known that this sum will not be distributed, Smelik said.

The reason for the cut was the need to curb capital influx into investment, which used to be almost automatic and to consider macro-economic requirements so that investment activity in the economic sphere is directed towards the capital market. He declared that market conditions should prevail especially in the water industry.

Smelik said it was possible to obtain further financing in the form of grants from abroad to supplement the budget allocation, citing a contribution of approximately four billion crowns for the desulphurisation of northern Bohemia.

Projects in Brno requiring investment include the construction of a sewage system and sewage plants and measures to counter air pollution.

Environment Fund Lacks Money for Approved Projects

*AU2708155193 Prague LIDOVE NOVINY in Czech
26 Aug 93 p 3*

[David Cap article: "The Environment Fund Has No Money for Projects"]

[Text] The State Environment Fund will collect 800 million korunas from large- and medium-sized polluters

in fees for releasing harmful substances into the air. This sum would not be enough even to pay for just one separator of harmful substances in a thermal power station.

The level of the fees was determined by the law of 1991. Released poisonous substances are divided into three main groups, according to the degree of danger. For instance, in the first group there is asbestos, benzene, biphenyl, mercury, and cadmium, in the second, fluorine, chlorine, and phenol, and in the third, there is ammonia, acetone, and toluene. The fee for releasing one tonne of these substances amounts to 20,000 korunas in the first group, 10,000 korunas in the second, and 1,000 korunas in the third. The polluters pay, however, only 30 percent of this sum, since the said law on atmosphere states that, in order to alleviate the impact on enterprises, the full amount of these fees will begin to be collected as late as in 1997.

Apart from money collected on fees for polluting, there is additional income to this fund, which are the fees for releasing waste water into surface waters, fees for storing waste material, levies for drawing on underground water supplies, and levies for taking over agricultural soil. Moreover, the fund receives one half of each fine administered by the Environment Inspection (the other half goes to the community). Last year, the fund received a donation from the U.S. Government amounting to 275 million korunas.

The State Environment fund was established on 1 January 1992, and it has received 1,200 applications for the support of ecological projects since then. A thirteen-member council of the fund makes decisions on these applications. The council is composed of Parliament deputies and the representatives of ministries. The council has rejected 332 applications, since they did not meet the criteria of the fund. The remaining applications were handed over to the minister of environment, who is the administrator of the fund, and personally decides on each project. As of today, he has approved 328 of them. The fund provides, above all, loans to applicants, and it can also provide subsidies. Their number is declining, however, and only communities can be awarded subsidies.

The greatest number of applications are for projects for the protection of the cleanliness of surface waters. According to Engineer J. Nevyjel, the fund economist, this is because the level of fees for polluting waters makes it advantageous for the enterprises—those enterprises that intend to stay here for more than five years—to build a waste-water cleaning plant.

The half-year report on the economy of the fund states that the amount needed to support approved projects is 19.4 billion korunas. The application for the contribution from the state budget should be discussed at the Finance Ministry today.

A list of the principal payers of fees for releasing substances into the air.

Data are given for this year, that is, they represent 30 percent of the calculated sum. Chemopetrol Litvinov: 40,000,000 korunas Trinec Ironworks: 29,000,000 korunas Chvalatice Power Station: 26,000,000 korunas Ledvice Power Station: 19,000,000 korunas Tisova Power Station: 17,500,000 korunas Komorany Power Station: 17,000,000 korunas Poldi Kladno: 7,000,000 korunas Kaucuk Kralupy: 7,000,000 korunas

New Environmental Legislation Found To Be Counterproductive

AU0809125093 Prague CTK in English 1436 GMT
6 Sep 93

[Text] Brno, South Moravia, Sep 6 (CTK)— A series of demonstrations, happenings, concerts, lectures and meetings to be held in the Czech Republic on the International Ozone Day (September 18), will be coordinated by the Duha (Rainbow) environmental movement's (HD) Brno-based center.

Similar events will be organized by environmentalists from 30 countries throughout the world.

Daniel Vondrous from the HD said at a press conference in Brno today that the main goal of the envisaged ozone-day activities in the Czech Republic was mainly resolute negotiations with those enterprises, which continue, though legally, to destroy the ozone layer and our chance to survive as well. The HD demands that the law on the ozone-harming substances, passed by the parliament on July 8, 1993, be amended as quickly as possible.

The curbed law has lost its original meaning. It had been aimed to reduce essentially the production, imports and usage of ozone harming substances as early as 1994, as it is being practiced by the other European countries, Vondrous said. But paradoxically, the law makes possible temporary increase in the consumption of hard freons, and an unlimited increase in soft freons, he added.

The law bans as of April 1, 1994, the production, imports and consumption of three types of ozone-harming substances out of the total of 54, Vondrous stressed. Seventeen other substances are banned as of January 1, 1996 and the remaining 34 substances were simply crossed out from the law, he said, underlining that originally, production of all 54 types of substances was to be banned as of April 1, 1994.

The activities to be launched late next week mainly in Prague, Brno, Ostrava, North Moravia, and Pardubice, East Bohemia, will include presentation of used freon sprays to Czech Environment Minister Frantisek Benda on Friday, September 17. A march of thanks of freon refrigerators is scheduled to take place on the same day.

HUNGARY

Young Democrats Present Environmental Policy

AU1108051093 Budapest NEPSZABADSAG
in Hungarian 10 Aug 93 p 11

[Interview with environmental activist Zoltan Illes, leader of the environment and nature protection office of the Federation of Young Democrats [FIDESZ], by Peter Uj; place and date not given: "It Is Not Enough To Protect the Environment in Words—Zoltan Illes on FIDESZ's Greenness, Paks, and the Possible Cancellation of the World Expo"]

[Excerpts] [passage omitted] Uj: How does environmental protection fit into the economic ideas of the liberals, which advocate free market capitalism? It is difficult to imagine some kind of free-market environmental protection.

Illes: The Federation of Young Democrats [FIDESZ] does not advocate free-market capitalism. There is no such thing in the world. Other kinds of factors always exist in the so-called free markets, too. The essence of the liberal ecology policy is that it makes those who pollute the environment pay for the damage and for the exhausted resources. This is real market competition. Today's market gives preference to products that pollute the environment. Society, rather than those who create it, is made to pay for the cost of producing waste, and air and noise pollution. An example: The Ministry of International Economic Relations gave a grant in the region of 100 million forints to a joint venture that produces plastic bottles. In this process, many by-products are also created that pollute the environment, but the major problem is that these bottles cannot be reused. They represent a lot of our garbage, we do not have selective garbage collection, and when the material is burnt, carcinogenic dioxin and hydrochloric acid gas is produced. The population is made to pay all the costs. [passage omitted]

Uj: Will it be in the interest of the next government to have a strong environmental ministry that may, in a given situation, hurt the interests of the economic ministries and groups?

Illes: Environmental and nature protection can also be a strategic branch of the economy. For example, in Germany, amid the severest recession, the environmental background industry is a compelling force. It only hurts the interests of those who want to have unlawful advantages in the market by making others pay for their pollution. FIDESZ, and hopefully the next government, does not and must not support such groups. I am also convinced that it will not again be possible to put a puppet into the ministerial chair for environmental protection. Sandor K. Keresztes was just such a puppet; he is a very nice person, but he knew nothing about what he was doing and, in addition to this, it was his duty not to do anything. Janos Gyurko, his successor, is much more familiar with the professional jargon, but he does not really have any room for maneuver and he can only

offer verbal environmental protection. In my view, this kind of politics has no future. It is obvious that the environmental ministry will never be a top ministry, but then it does not need to be one. However, economic factors will also force future governments to change the environmental policy. For example, the EC will simply not buy Hungarian products that are produced with polluting technology. A system of certification will soon be introduced, which means that the producers will have to certify how the products were made. [passage omitted]

Uj: Your views also differ from that of the Hungarian Democratic Forum [MDF] government on the energy issue.

Illes: We need the nuclear power station in Paks, and we do not have any problems with this. However, we do not need to build new units and do not need a new nuclear power station, either. We have to achieve a reduced energy requirement in the economy. If economic growth starts—and we hope that it will—it will not be possible to maintain an outdated industrial structure. For this reason, it is not necessary to develop energy production significantly. Energy that is not produced is the cheapest and the most environmentally friendly. When electricity is abundant and cheap, then everyone uses lots of it and the outdated structure becomes preserved. It is vitally important that a modernization that makes more sensible use of resources is started. In this, environmental protection is a strategically important factor. [passage omitted]

Uj: How would you change the environmental ministry, which in your view is incapable of functioning?

Illes: The structure has to be simplified. A schizophrenic ministry, where two areas with antagonistic interests are in the same place—construction and area development on one side and environment and nature protection on the other—is completely unacceptable. We would like a more powerful ministry with a single profile, which is open and public and which constantly communicates with the public through the media. It is important to reach the green movements and to rely on them. More money could be allocated from the budget for this area—at the moment, this is the poorest ministry but, in my view, we have some possibilities and we can make some savings through simplifying the structure. [passage omitted]

POLAND

New Nuclear Power Plants Needed To Overcome Pollution

LD1308132093 Warsaw PAP in English 1214 GMT
13 Aug 93

[Text] Warsaw, Aug. 13—"We think it is important to start implementing the November 9, 1990 Sejm resolution which provides for the first nuclear power plant to come on line by the year 2005," Jacek Burski, a member of the board of the Polish Nucleonics Association has announced.

The association is of opinion that the new generation plants should be installed in Zarnowiec, northern Poland—the site of Poland's only nuclear power plant whose construction was stopped in 1991 at a cost to the state budget of some 1 billion dollars—as the construction time could be reduced by up to 4 years and costs could be cut by some 100 million dollars.

At present, pollution-stricken Poland derives some 96 percent of its electrical energy from coal-fired power stations, and no fume desulphurisation installations are used in the process, Burski said.

Poland plans to install environment-friendly technology in power plants at "Belchatow" in 1994 and "Jaworzno 3" in 1995. If installed, they will lead to a 30 percent reduction of sulphur dioxide emissions at Belchatow, and as much as 65 percent at Jaworzno 3. Currently, power plants and energy producing plants are responsible for some 90 percent of sulphur dioxide emissions, 40 per cent of nitrogen dioxide and 70 per cent of other fumes.

Furthermore, the coal mines themselves are major polluters. Some mines drain off waters whose level of salt is three times higher than that of the Baltic Sea. The Oder and Vistula rivers alone get as many as 5 million tonnes of salt annually during the process. This has serious implications for biological life in the rivers, lowers the quality of drinking water, causes the corrosion of vessels, water plants and cooling and water supply systems.

According to Burski, coal which causes deterioration of environment will have to be replaced by modern technologies. Poland should follow suit and as a result debt-ridden, unprofitable coal mines which are hazardous to environment and outmoded, barely economical power plants should be closed down. Coal should be substituted with natural gas.

Forecast economic growth will lead to a rise in Poland's energy needs. They have dropped by 30 percent since 1988 because of the recession. But the country faces a rapid depletion of its domestic energy reserves over the next few years. If nuclear power projects come on line, Poland will be able to break the monopoly of fossil fuels in domestic energy grid, Burski said.

Burski noted that the association shares the opinion voiced in a report prepared by the Club of Rome, that the further growth of the world is impossible without nuclear power plants. Poland cannot stand to one side away from the international effort aimed at reducing the global emission of carbon dioxide to decrease the "greenhouse effect." Poland produces 3,290 tonnes of this hazardous substance per capita, twice as much as in France and much more than elsewhere.

Thirty-two nations utilize 423 nuclear reactors with a total power capacity of 414.3 megawatts and another 74 are under construction. In nine countries one third of electric energy is generated by nuclear power plants (in France the figure is 78 percent and in Belgium 59 percent). Poland's neighbours plan to build 6 new

nuclear power plants in the near future and the state of the art technology will make their utilization safe as its life will be extended to over 40 years.

Several opinion-making bodies have responded positively to the association-distributed resolution and supported the bid to start the construction of a nuclear power plant.

ROMANIA

Accord With Slovakia Focuses on Danube Cooperation

AU0409163593 Bucharest ROMPRES in English
1543 GMT 4 Sep 93

[Text] Bucharest ROMPRES, 4/9/1993—Saturday, 4 September Romania and Slovakia signed in Bucharest, through their environment ministers, Aurel Constantin Ilie and Jozef Zlocha respectively, a cooperation agreement on environment protection, focused mainly on the implementation of the "Danube Programme" in all its components: the Danube Convention, the research programme for the depollution of the river with the contribution of each riparian country.

Romania has signed similar conventions with Bulgaria, the Republic of Moldova and Germany, the Romanian environment minister said. The basic principles must be agreed on by all Danube countries so that each could bring its share to both sides of the scheme: research and financing.

SLOVAKIA

'Environmental Protection' Most Important Attribute of Dam

AU1808111193 Prague CTK in English 1502 GMT
16 Aug 93

[Text] Bratislava August 16 (CTK)—The Gabčíkovo hydroelectric project on the Danube River has already settled the question of the protection of the environment, Julius Binder, director of the Vodohospodarske Vystavby water management firm which is in charge of construction, told Slovak Radio today.

He said environmental protection was the most important attribute of the whole project.

Today the Hungarians have no other arguments against the project besides political ones, Binder said. He said the underground water level was optimal, except on the territory in the close vicinity of the Hungarian side because Hungary refuses to create an underground water reservoir there.

Binder said that if the controversial Gabčíkovo-Nagymaros project is discussed by experts an agreement with Hungarian partners would be reached very soon and an optimal state of the underground water in the whole region would be achieved.

To the activities of the Slovak Green Party which objects to the construction, Binder said that he could not understand how a party which failed to win even 2.5 percent of the votes in last year's parliamentary elections could claim the right to speak on the national problem. Binder described the party as a bundle of people who jeopardise Slovakia's authority abroad.

YUGOSLAVIA

Macedonian-Greek Lake Dojran Threatened

93WN0530X Skopje NOVA MAKEDONIJA
in Macedonian 12 Jun 93 p 15

[Article by Kire Janisljev: "Peon's Threats"]

[Text] Will this Macedonian-Greek lake share the fate of the former Peon Lake? Greece is interested in this lake only as a container. The involvement of UNESCO and other international institutions is the only chance for preventing an ecological catastrophe.

Dojran Lake is what remains of the former Peon Lake. Or, more precisely, of the Peon group of natural Balkan lakes, which disappeared under the influence of natural laws. According to the scientists, in the Diluvial Period, Dojran Lake was three times the size of the one today and as much as 11 times deeper. Meanwhile, in the past five years alone, the hydrological situation of the lake has become alarming: its 10-meter depth has been reduced by half. All that is left in Dojran Lake are 90 million cubic meters of water, which is only one-third of its maximum capacity.

Unless we increase our efforts to save Dojran Lake, soon, perhaps even this autumn, the present quantity of lake water may be reduced by one-half. This is one more alarming news coming from the southern part of the land, from the shores of Dojran Lake, which triggered the initiative of the Macedonian radio and television. "Let us jointly rescue Dojran Lake from ecological catastrophe." This initiative was institutionalized and supported by the Republic's government. Ecologists, hydrologists, and other specialists and representatives of the various state agencies have tried, once again, to tell the truth about Dojran Lake. They also tried to answer the question of whether that lake is threatened with the fate of the disappeared Peon Lake.

Impoverished Flood Basin

The geographic, weather, morphological, hydrographic, and hydrological characteristics of the lake basin and of the lake itself in themselves affect its aging and changes in its size and depth. However, this is not to say that natural laws are the only reason for the present ecological catastrophe with which it is threatened. In addition to excessive evaporation (as much as 800 millimeters annually), over the past five years, the excessive draining of lake waters has only hastened the ecological catastrophe.

We are familiar with the map of Dojran Lake: Out of 42 square kilometers, two-thirds are ours and one-third is Greek territory. The ratio for the flood plain is the

opposite: out of 270 square kilometers, two-thirds are in neighboring Greece. Every year, between nine and 11 cubic meters of water flow into the basin, not into Dojran Lake, but into the artificial storage areas. Every year, in Greek part of the basin, eight to 10 million cubic meters of water from natural sources are channeled into the artificial storing areas built for the purpose of farmland irrigation. Man has used the affluents by changing their direction, ignoring the fate of Dojran Lake. On our territory, no more than one million cubic meters of the flow are used for various purposes.

This impoverishment of the basin makes impossible to restore the water balance that would enable Dojran Lake to survive. On our part, some steps have already been taken to protect this Macedonian-Greek lake, above all the completion of the first stage of the collector system that, in addition to the 8,231 meters-long canal, includes a treatment station and a pressure pipe. Neighboring Greece, however, is not displaying any good will in protecting Dojran Lake, for our neighbors are interested in it only as a storage area. Drosato Township committee member Terzenidis has explained that the demands of the population on the Dojran shores for canals to carry the water from the Struma and other rivers to the lake have remained unsuccessful. Although the sum of \$50,000 has been approved for a scientific study of that area, the work has still not been undertaken.

International Monitoring

Our country's membership in the United Nations created opportunities for our participation in international institutions, above all UNESCO, so that the protection of the lake is not only our exclusive concern but also the concern of the neighbors, said Antonio Peshev, the Republic's minister of urban development, city building, communications, and ecology. According to the minister, we need to make minor but fast decisions for delaying the dying of the lake and to present arguments to the international community in favor of a more extensive and longer-range action. With the help of international institutions, we should demand that the Greek side adopt a suitable attitude in handling a natural resource.

Eftim Ancev, the Republic's minister of agriculture, forestry, and water resources, believes that a key aspect in protecting the lake is the involvement of Greece. This has now become more realistic, for as an equal international entity, our country can insist that Greece consider this (joint) problem through the auspices of specialized international institutions. Apart from that, Ancev explains, the Ministry of Agriculture is monitoring the situation and considering suggestions about directly changing the water balance of Dojran Lake. Several proposals have been formulated in Macedonia for increasing the flood basin on our territory, so that more water would reach the lake. This includes water from Kozuv Mountain, the Vardar River, and the groundwaters of Belasica Mountain.

The Republic's Ministry of Urban Development, City Building, Communications, and Ecology believes that the suggestions for resolving the problem of protecting the Dojran Lake, are, at present, only possible alternate solutions, which have not been sufficiently studied from the ecological and economic viewpoints. It points out that the run-off of Konska Reka is insignificant and that even if one of the alternate suggestions is adopted, the results would not be satisfactory but, conversely, might even harm the Republic of Macedonia. The Republic of Greece must also take proper steps to protect the lake by above all restoring the old water balance in its own flood basin. However, this must not remain merely the wish of the population and the fishermen of Dojran Lake but also of the Greek government.

That is why the ministry suggests, as a priority measure, that the Ministry of Relations with Foreign Countries increase its efforts to resume discussions with the Republic of Greece for the solution of this problem. Above all, it is necessary to activate the permanent Macedonian-Greek commission on water resources, for our country is the legal heir to the bilateral discussions conducted between former Yugoslavia and the Republic of Greece. We would suggest to our neighbors the conclusion of a special treaty on the protection and use of Dojran Lake. The second task would be the drafting of relevant scientific documentation on the basis of which Dojran Lake would be included in the list of global natural and cultural legacy kept by UNESCO. This also implies participation in the other international organizations that could provide economic, scientific and technical, and mediation assistance.

In addition to demands for international consideration of the problem and the resumption of Macedonian-Greek talks on the lake, the Ministry of Urban Development has also defined measures to be taken domestically. Above all, this involves creating conditions to ensure funds for maintaining the existing part of the system for the protection of the lake by charging a fee for the treatment of effluent waters and releasing income from electric power, to be compensated from the Republic's budget. Furthermore, funds must be provided for the complex monitoring and implementation of the program relative to the condition of the lake and proper measures must be taken for its protection. Further studies are also needed, whose purpose must be to prolong the life of Dojran Lake.

Whether, and to what extent, such steps to save the lake will yield results depends on a number of factors, such as the fast resolution of all scientific and other problems and taking the extremely necessary minor steps that would provide the country with a strong argument in internationalizing the problem. Equally significant is the intermediary role played by the international institutions concerning the joint Macedonian-Greek concern for this natural resource. However, time alone will show whether raising yet another question in the course of the Macedonian-Greek dispute will save Dojran Lake.

BOLIVIA

Structure of New Sustainable Development Ministry Disclosed

PY2608224493 Cochabamba LOS TIEMPOS
in Spanish 17 Aug 93 p A8

[Excerpts] La Paz, 16 Aug (LOS TIEMPOS and ANF)—According to the structure of the new Sustainable Development Ministry, the ministry will have under its jurisdiction 32 organizations, among them secretariats, under secretariats, directorates, funds, corporations, and administrations, which will replace some of the functions which up until now had been held by the former Ministry of Campesino Affairs and Agriculture, which is now under the Ministry for Economic Development.

Due to the characteristics of the new ministry priority will be given to the environment, through the National Fund for the Environment (Fonama) [Fondo Nacional Para el Medio Ambiente] and the Environment Comptrollers Office [Contraloria Ambiental] which are two organizations directly linked to the ministry. The other organizations at the same level are: Legal Advisory, Internal Auditing, General Secretariat, and Administrative Directorate.

There are three secretariats at the next level: Promotion and Investment, Strategies and Regulations, and Management.

The Promotion and Investment Secretariat will have under its jurisdiction the Under Secretariats of Promotion and Integration and of Preinvestment and International Cooperation. The Strategies and Regulations Secretariat will have the Under Secretariats of Strategies and of Policies and Regulations; and the Management Secretariat will have the Under Secretariats of Continuity and Control and of Administration of Natural Resources. [passage omitted]

The complex organization of the Sustainable Development Ministry also includes the departmental governments, the municipal administration, the community organizations, and the corporations for sustainable development, which will function in the nine departments. [passage omitted]

BRAZIL

Acre Governor Supports Deforesting 20 Percent of State

PY1308004593 Sao Paulo O ESTADO DE SAO PAULO in Portuguese 8 Aug 93 p 26

[Article by Marco Uchoa]

[Excerpts] In a 90-day period, 20 percent of Acre State's territory will be "for sale" by Governor Romildo Magalhaes (PPR) [Progressive Renewal Party]. The idea is to attract investors from the southern part of the country in the agriculture and livestock areas. There are approximately 30,400 square kms, 8,000 more than Sergipe

State. The "purchasers" will be able to exploit hardwood, chestnut trees, and rubber trees, and will be authorized to promote deforestation to begin production projects. Magalhaes decided to support the idea of farmers in the region to try solving Acre's economic situation, engulfed in an internal debt of 200 million real cruzeiros.

Acre has only 5 percent of its forests devastated and 65 percent of the area protected by law. Of the remaining 30 percent, the "sale" project wants to use 20 percent. With that, the deforested area in the state, one of the most protected for now, would increase from 5 percent to 25 percent. Control of the state's 152,000 square kms is carried out by only 12 agents from the Brazilian Institute for the Environment and Renewable Natural Resources (Ibama). This week, the governor will outline the "sale" plan. The price of land has not been established yet.

Those interested will be receive reduced taxes and special periods for payments for the land. [passage omitted]

Environmentalists are overwhelmed by the project and are threatening to ask First World countries to boycott the state if the occupation plan of 20 percent of the state's land is in fact implemented. "We cannot allow the forest to be affected," said Atanagildo de Deus Matos, chairman of the National Council of Rubber Producers (CNS). The CNS is one of the most active companies in the region. "The developed nations will not allow that disorderly occupation and probably will cut investments in the state," Matos said.

Of the state's 450,000 inhabitants, 60 percent are unemployed. Tax collection last month amounted to 100 million real cruzeiros, 80 percent to meet the inflated payroll. "The environmentalists must learn about our real situation before criticizing," Magalhaes said. "I will sacrifice the forest on behalf of the people," he concluded.

MEXICO

Urban Development Under Secretary on NAFTA, Environment

PA1808150893 Mexico City Canal 13 Television Azteca Network in Spanish 1300 GMT 18 Aug 93

[From the "Early Hours" newscast]

[Text] Jose Luis Soberanis, under secretary of urban development, an infrastructure of the Secretariat of Social Development of Mexico, has made several statements regarding Mexico's legal obligations to face the new circumstances of the environment and environmental preservation stemming from NAFTA.

Soberanis said that Mexico has the laws and structures that are necessary to respond to those commitments of environmental preservation reached with the United States and Canada. He ruled out the possibility that Mexico will become a toxic dump for the North's residues. Mexico is prepared to fulfill its commitments in matters of ecology and the environment, contemplated

within the NAFTA framework. He said the conditions are not given for our country becoming a toxic waste dump, because the NAFTA signatory countries are committed to respecting the country's environment and ecology.

[Begin Soberanis recording] NAFTA will permit cities in the northern part of the country to become excellent alternatives for the location of industrial plants as well as other production plants. [end recording]

During a meeting that lasted less than three hours, Soberanis said that the Secretariat of Social Development promotes private investment in constructing sites for the confinement of toxic and industrial waste and that for the time being they have received applications from 15 private companies to build them. He told legislators that the bases are being established in the country for a harmonious urban development with equipment, infrastructure, and services, always safeguarding public health and the environment.

EGYPT

Desertification-Monitoring Satellite Begins Operation

93P50279A Cairo AL-WAFD in Arabic 11 Aug 93 p 2

[Text] Dr. Ibrahim Hamidah, vice president of the Desert Research Center, has announced that the first satellite station specializing in monitoring signs of desertification is up and running. It provides geological information on the existence of ground water, oil, natural gas, and other mineral resources in an area reaching 3,200 square meters around the city of Cairo. Dr. Hamidah confirmed that the cost of the new operational station, financed by the World Bank, amounts to 55 million pounds. The station has a second phase, to be implemented during the current five-year plan with French financing of six million pounds, which aims at producing space charts to pinpoint wind current movements, wind speed, and changes in sand dunes and the earth's temperature. As for the photographs and charts of geological formations provided by the station, they reflect what is underground, regions where oil and natural gas are expected to be found, and the possible existence of ground water, which is greatly required by companies working in areas of research and excavation—while providing a base of Egyptian geological information.

Dr. Hamidah also mentioned that the photographs and charts obtained by the station will aid in monitoring temperature around the epicenter of any earthquake occurring in Egypt. An earth surface temperature watch aims at observing changes until normalcy is achieved, and is something which helps in possibly forecasting earthquake aftermath.

INDIA

Paper Highlights Threat to Forests From States

BK1708022293 Delhi INDIAN EXPRESS in English
11 Aug 93 p 8

[Editorial: "New Threat to Forests"]

[Text] The Union Minister of State for Environment, Kamal Nath, will require not a little courage to withstand the mounting pressure from the states to further dilute the provisions of the Forest Conservation Act. The state governments want direct authority to dereserve up to five hectares of forest land ostensibly for "public purposes." This indeed is why a sub-committee of the Inter-State Council has already recommended such change in the Act. Only in October last the Union Environment Ministry had vested the power to dereserve in its own six regional chief conservators of forests. The idea was to facilitate the speedy clearance of proposals from the states to release forest lands for urgent development works. The states, however, are not satisfied with the arrangement since it will make it difficult for them to dictate to the conservators. Hence the pressure to vest the power to dereserve forest land directly in the state governments. If this demand is

conceded, all talk of a balance between development and conservation will be hollow. It is the interests of powerful business lobbies that will take precedence.

Admittedly, it can be no one's case that development should be sacrificed at the altar of conservation. That is the rigid stance of overzealous environmentalists. Otherwise, the need for a positive policy for the promotion of conservation is widely recognised. This indeed is why the Forest Conservation Act was enacted. That it does not overlook the requirements of development is one of its merits. It seeks to meet them partially. Hence the provision for dereservation to a specific extent. It is to ensure that this policy is implemented in good faith that the regional chief conservators accountable to the Union Environment Ministry have been entrusted with the responsibility. It must be conceded, however, that not every case of actual diversion of forest lands under the Union Ministry's aegis can be fully justified. Take the encroachment on 28,518 hectares of forest land in Kerala. The Union Ministry sanctioned it less on merits because it found it expedient to oblige the Congress-led government of the state. This is by no means the only instance of its kind.

In the longer run, the degeneration of forests must be prevented in the interest of economic development on the right lines. Doubtless, pressure of population has contributed in a large measure to this degeneration. But the state governments, too, have failed to check encroachments on notified forest lands. Already, according to an authoritative survey, of the 83 million hectares of forest land in the country more than half is in various stages of degradation. The dilution of the Forest Act as desired by the state governments will further speed up this process.

Vice President Urges Cooperation Among Developing Countries

BK0109080893 Delhi All India Radio Network
in English 0730 GMT 1 Sep 93

[Text] The vice president has called for meaningful cooperation among developing countries in areas like agriculture, biotechnology, forestry, and environmental sciences. Opening the first ministerial conference of Forestry Forum for Developing Countries, FFDC, in New Delhi today, Mr. K. R. Narayanan said there is enough of natural resources and stock of scientific and technological knowledge in the Third World to work together. He said increased international cooperation is essential for the sustained and environmentally sound development of forests in the developing countries. Referring to the developed countries' tendency to fix responsibility on the developing countries for the ongoing greenhouse effect, the vice president said the North has played a major part by destroying their forests as well as the forests in the developing countries.

In his welcome speech, the environment and forest minister, Mr. Kamal Nath, said the main aim of the

conference is to identify methods and avenues to implement forest principles adopted at the United Nations Conference on Environment and Development.

Forum on Dangers of Deforestation, Need for Cooperation

*BK0709064593 Delhi INDIAN EXPRESS in English
2 Sep 93 p 9*

[Text] New Delhi—Inaugurating the ministerial conference of the Forestry Forum for Developing Countries, Vice-President K. R. Narayanan said on Wednesday that it was time for the developing world to protect their botanical and biological heritage—protect it for themselves and the world. Modern scientific methods and one-sided patent laws should not deprive us of these resources, he said.

In a candid, thought-provoking speech, Narayanan warned that if for some reason there is not the political will among developing countries to cooperate meaningfully in agriculture, biotechnology, forestry and environment sciences and if instead countries preferred to hang on to the glamorous garments of western science, these countries may bemoan their fate in the years ahead.

Ministers from 17 developing countries including China, Malaysia, Korea, Kenya, Sri Lanka, Tanzania and Mozambique are participating in the conference and delegates from 42 countries are participating in the discussions. Malaysia, which has a vigorous policy of timber export, is represented by the minister for primary industries, Lim Keng Yaik.

Also present are observers from nine developed countries and seven organisations like UNDP [UN Development Programme], FAO [Food and Agricultural Organization], UNEP [UN Environment Programme]

The conference is being held in the Convention Hall of Ashok Hotel against the backdrop of potted forests. An excellent exhibition gives an insight into the wealth of Indian flora and fauna.

People in the third world, desperately trying to advance on the scale of economic development, are interested in the global problems created by deforestation, but we cannot ignore the social and economic issues affecting the people, Narayanan said.

For the developed countries, third world forests are primarily 'sinks' for the enormous carbon-dioxide emissions produced by their unrestrained industrialisation. The difference had to be stressed because advanced countries tried to fix excessive responsibility on developing countries for the ongoing greenhouse effect and oncoming climatic catastrophe, Narayanan stated.

Asking the developed world to take the responsibility for deforestation and its implications, the Vice President said, "It is not enough to preach the principles of forestry. There is an old saying in the Indian language that the cat goes on a pilgrimage after eating a hundred rats!"

Environment and Forest Minister Kamal Nath said there was "a growing sense of impatience, and a feeling that the bold political initiatives of Rio have been submerged in diplomatic rhetoric, and despite some positive events, funding and other commitments are still much below the expectations raised in the Summit. We cannot allow this disillusionment to spread. Rio holds out our hope for the future. If we allow it to be snuffed out we will not be forgiven by future generations," he said.

The Minister said, "Cooperation is what we are looking for, not charity or compulsion. The relationship between environment and international trade was becoming increasingly important, particularly insofar as it relates to forests and forest products." Trade and environment, he said, should be mutually supportive for sustainable development, without discriminatory measures.

The Minister pleaded for an international climate that would enable countries which have forest-dependent economies to preserve these forests without having to sacrifice fundamental economic development in the process. The per capita consumption of round wood in developed countries is two and a half times that of the developing countries.

The Malaysian Minister, referring to the pressures of the North on the developing countries in the timber trade said the Austrian government had unilaterally enacted legislation to institute a discriminatory, non-tariff barrier against tropical timber on the pretext of environment. Two other European countries were trying to do the same. However, in the face of protests from tropical timber-producing countries, Austria had to backtrack.

Environmental Pact Signed With Japanese Firm

*BK0309062293 Delhi Doordarshan Television Network
in English 1615 GMT 2 Sep 93*

[Text] The Council of Scientific and Industrial Research has entered into an agreement with a Japanese firm, Mitsui & Company, for cooperation in the field of environment. Under the memorandum of understanding signed in New Delhi today, they have agreed to set up a program implementation committee to accord priority and recommend programs for implementation by the National Environmental Engineering Research Institute, the NEERI. The Mitsui & Company has set up an environment engineering trust with 50 million yen. The earnings therefrom shall be made available to the NEERI for carrying out programs relating to conservation and protection of environment.

Conference Asserts Sovereign Right of Nations on Forests

*BK0309091093 Delhi All India Radio Network
in English 0730 GMT 3 Sep 93*

[Text] The ministerial conference of the Forestry Forum of Developing Countries has called upon the governments and nongovernmental organizations to augment the efforts to increase the productivity of forests. The

Delhi Declaration on forest which was unanimously adopted in New Delhi today stressed the need for alternative employment opportunities to people dependent on forests. The conference, during its three-day deliberations, acknowledged that forest resources are inalienable national resources and asserted the sovereign right of nations to use them in accordance with national priorities.

IRAN

Iran Announces Full Support for Environmental Protection

*LD0409110293 Tehran IRNA in English 0741 GMT
4 Sep 93*

[Text] New Delhi, Sep. 4, IRNA—An Iranian official has assured Tehran's full support for preservation and protection of environment both at global and Third World levels.

Deputy Construction Jihad Minister B. Fallah, currently here as head of the Iranian delegation to the three-day

Third World forestry conference, made the remark in a meeting with Indian Minister of State for Forest and Environment Kamal Nath Thursday evening.

During the meeting, Nath underlined the right of each sovereign nation to preserve its own environmental heritage without interference of developed countries.

He expressed hope that the conference would be successful in drawing up a Third World strategy on global environmental issues.

The Indian official also hoped that as an important regional power, the Islamic Republic of Iran would play a major role in getting the objectives on the development of forest and environment translated into practice.

The two sides also discussed prospects of the Third World cooperation on environmental issues.

It may be noted that forestry meet aims at evolving an independent Third World policy on environmental issues on the lines of the recommendations made in the UN conference in Rio, Brazil, last year.

RUSSIA

Geological Exploration Directorate Maps Moscow Radiation Hazards

93WN0541A Moscow NOVAYA YEZHEDNEVNAYA
GAZETA in Russian No 19, 23 Jul 93 p 4

[Article by Vyacheslav Nedogonov, under rubric "Personal Safety": "Citizen X. Was Radiating 500 Microroentgens an Hour: And Other News of Moscow's Radioactive Contamination"]

[Text] The map that you see before you [map not suitable for reproduction] until recently remained strictly secret. Unlike all other similar maps, this one is a serious working document showing information conceding radioactive contamination up until May 1993. It was prepared by specialists at an institution that only a few people knew about.

Geologists Working Under Secrecy Conditions

In the very center of Moscow, an ancient separate building on one of the quiet side streets has been the home for several decades for one of the most secret institutions in the former USSR. Until recent years it was called the Expedition of the First Main Geological Prospecting Administration. The administration's tasks included the search for, and prospecting of, deposits of uranium on the territory of the former USSR.

The best radiologists were invited to work there. Crews that were specially equipped with airplanes and helicopters worked there. And branches of the administration were located in all the major cities, covering the country with a fine network of observations. The administration's "elite" was made up of flying brigades that could be transferred at the necessary moment from Moscow to any point in the country, where they could carry out the most accurate measurements instantaneously.

During all the years of its work the First Geological Prospecting Administration did not betray the hopes that had been placed on it. In Central Asia and Ukraine it discovered uranium reserves that were sufficient for the continuous extraction and concentration both of military and peaceful nuclear fuel. Moreover, the duties of the specialists at the First Administration included the tracking of the movements of radioactive shipments over the country's territory. But on the territory of the USSR the secret geologists operated like people in counterintelligence: during all the years of their work, the population did not even guess about the essence of the work being done.

Having been convinced of the absolute reliability of the actions performed by the secret geologists, the party and the Soviet government in 1978 gave them a new assignment of incredible importance. According to information that was received that year at Mossovet, certain trucks that had been proceeding with radioactive waste products along the roads of Moscow were not completely sealed and had been contaminating the sides of the roads

and the sidewalks. Those trucks had been carrying "glowing" trash from secret sites situated on the city's territory.

But the first results of the work performed by the Main Geological Prospecting Administration perplexed everyone. It turned out that it was not really the special trucks that had been leaking the radioactivity. So the flying brigades discovered everywhere—in parks, on the roads, and the children's playground areas in Moscow—a large number of "glowing" spots of mysterious origin.

It was at that time that the map showing Moscow's radioactive contamination began to be created.

After the beginning of perestroika, someone at the highest level decided that, inasmuch as nuclear weapons were being reduced, the country did not need any new reserves—the reserves that had been prospected would be sufficient. In the mid-1980's the prospecting was stopped, the projects were mothballed, and the First Main Administration was declassified.

It took an additional year before it became clear at the new, Russian highest level that even for peaceful purposes the amount of extracted uranium would not be sufficient for a long period of time. It was then that people remembered the former secret geologists.

Map

Nuclear geologists are people who are scrupulous and who are disciplined in the military manner. After receiving 15 years ago an assignment to study Moscow's contamination, they executed that order for all those years. Especially since no one had issued the "all clear" signal. The capital operated its own special "tracking" departments—the Radon NPO [scientific-production association] and the Radiology Department of the city's sanitation and epidemiological station—and the geologists kept taking their measurements. Their catch staggered the imagination—each year they discovered an average of 50 sectors and sources of contamination. From 1982 through 1987 alone, 350 of them were discovered. Glass flasks and "glowing" plates, and sectors of asphalt and sand in children's sandboxes—all these items were plotted onto a map of the city and immediately reported to the city SES [sanitation and epidemiological station] for them to take the necessary steps.

Starting in 1987, teams of "pedestrians" began a new survey of Moscow. Once again, the first results were staggering. After studying this time, for the second time, 40 percent of the city's area, they found 300 new (yes, new!) sources of contamination.

Detective Story

In the summer of 1988 one of the flying brigades from the First Administration discovered, absolutely accidentally, in the trash cans next to building No. 9 on Ulitsa Severodvinskaya, a radiation with a power of 25,000 microroentgens an hour. This was all the more strange in that an employee in the same flying brigade lived not far

from building No. 9, and a specially equipped vehicle had already taken measurements there recently. The apparatus that was turned on had not registered anything. Now, all of a sudden...

The hot trail led to apartment 54 in the next building, No. 11.

When the radiologists entered the apartment, their instruments jumped off the scale. The bathroom registered 28,800 microroentgens an hour; the bedroom, 14,000; and the balcony, 1400. Citizen X., who was living in the apartment, categorically denied having anything to do with radiation. He asserted that he did not know anything about it. By way of an alibi, he stated that he had completed four years of study at the Tashkent School of Physics and Mathematics and was well aware of the consequences of that kind of contamination. The body of citizen X. radiated 500 microroentgens an hour.

A year later, a large burial of radioactive waste products was found on the shore of the Klyazma Reservoir. A radiation source with a power of 300 roentgens an hour was found not far from an area of the reservoir that was used for teaching sailing. It was an ordinary cellophane bag in which a pair of children's shorts and a T-shirt were "glowing." Lying on the beach was a hot-water bottle that radiated 4 roentgens an hour. The T-shirt bore a girl's first name and last name. The investigation led to the apartment that we are already acquainted with—apartment 54. The girl proved to be citizen X.'s daughter. In court he confessed that, while working in a small enterprise, he had carried out experiments with radioactive sources. He was given a sentence of four and a half years.

Work began immediately to decontaminate the building. A kind of commercial structure was put into action. It undertook the job of cleaning the building at a moderate price. The businessmen actually did do a wonderful job. They completely dismantled the trash chute, which had been radiating several hundred microroentgens, and, taking their money, they left.

A year went by, and in 1991, on the territory of the Losiny Ostrov National Park, when readings were being taken by the First Main Administration, a powerful source of radioactive emission was discovered. The equipped pedestrian group discovered in an impassable section of the woods... the dismantled trash chute from building No. 11.

Other Instances in Recent Years

A source with a power of 612,000 microroentgens an hour was found in the sandbox at the day-care center and kindergarten at the Institute of Nuclear Research imeni Kurchatov.

Housing project on Ulitsa Obrucheva. As became clear during the additional research, it had been constructed on a former radioactive dump site. Sectors with a power of 216,000 microroentgens an hour and of 1.8 roentgens

an hour were found there. A year after the decontamination operations, new radioactive waste products were found. It is assumed that it is no longer possible to decontaminate completely the area that had been built up on top of the former dump site.

Noginskiy Rayon. As a result of a break in the settling tanks from a secret site, a contaminated sector with a radiation power of 300 microroentgens an hour was discovered. The Vakhonka River was contaminated. Approaching the river was dangerous to people's health. On the basis of a recommendation from the First Main Administration, it was deemed necessary to fence off the river immediately.

Central Park of Culture imeni Gorkiy. A rod of Cobalt-60 was found in a flower bed next to a children's play area. The radiation power was four roentgens an hour.

Nezhinskaya Ulitsa. A capsule with Radium-226, radiating 1.8 roentgens an hour, was found near an apartment building.

Prospekt Vernadskogo. Two sources, ten and seven roentgens an hour.

Khimki. On the territory of a civil-defense military unit, radioactive contamination emitting 100 roentgens an hour was discovered. (This military unit is the one whose task specifically includes the decontamination of the territory in the event of mass contamination.)

And, finally, the record-breaking incident. The Podolsk Nonferrous Metals Plant. Originally the radiation was detected on the dump heap. A detailed study was carried out. It was ascertained that the nonferrous metals plant was completely (yes, completely!) contaminated by radioactivity. Its decontamination had to be carried out with the aid of specially protected equipment, inasmuch as moving over the territory of the plant was so dangerous to people's health. And yet people had been working there calmly for several decades continuously. The cost of digging up and replacing the soil and the asphalt was 25 million rubles in 1991 prices.

Electromagnetic Radiation

Having established that the city of Moscow had a level of radiation that was exceptionally dangerous for people's health, the secret geologists, on their own initiative, began other studies within the city limits. Scientists to this day argue about the specific way in which increased electromagnetic radiation affects the human organism. It is known, for example, that SVCh [superhigh frequency] radiation distorts the data provided by medical instruments (cardiograms).

The first research in Moscow immediately produced a startling result. Increased radiation was registered in Khoroshevskiy Rayon, on Shabolovka [Ulitsa]. The cause was ascertained there. Radio-101, which is well known to music-lovers, had done the damage: radiation at a frequency of 101 megahertz had encompassed all the

adjacent buildings (that power is two to three times higher than the admissible norm.) The transmitter was shut down.

On the territory of Khimki (the new structures), increased radiation was registered at a height of several dozen meters above the ground. The cause: the radars at Sheremetyevo airfield. It was recommended that no tall buildings be constructed in that area.

Currently, measurements are being taken in the area of Ostankino. So far, nothing alarming has been discovered there.

Incidentally, so-called "white balls" have been installed on certain tall buildings. In all probability they are used to hide the long-distance monitoring equipment of the former KGB, currently the MBR [Russian Ministry of Security]. It is known that this equipment operates with the use of SVCh radiation. Already employees of the First Main Geological Prospecting Administration whom we know have proposed studying the radiation in neighboring apartments and buildings. (But this requires an official order from the Moscow government!)

Recently the First Administration was renamed. Now it is Geokotsentr [Geococenter]. In conformity with the new name, the specialists began a detailed study of the surrounding environment in Moscow Oblast and the oblast adjacent to it. Alas, here too the institution's secrecy played a mean joke with it: they attempted not to divulge the obtained results. The data cited below is being published for the first time.

Contaminations with Mercury in the Surface Runoffs of Rivers

Sectors were discovered close to Moscow where contamination with mercury is 7000 times higher than the background values. They are the area of Klyazma, the upper current of the Moscow River (Bronnitsy-Voskresensk), and Klin (mercury instruments plant).

Pesticides

Practically the entire Moscow Oblast has been contaminated. The amount of pesticides that enter the soil here is five times higher than in the neighboring oblasts. In the drainage area of the Sestra River, the middle current of Moscow River, and in Serpukhovskiy Rayon, concentrations have been registered that are as many as 114 times the maximum admissible ones.

Serpukhov: two-thirds of the city's territory are contaminated by dust (DDT). Incidentally, 18 years ago, on the recommendation of the World Health Organization, that preparation, throughout the world, was declared to be dangerous to people's health. The greatest concentration of dust was detected in the center of the city and close to the railroad station.

Total Indicators of Class-I Danger

Specialists include in this category petroleum, benzopyrene (causes cancer), and heavy metals. All these elements were detected in more than half the cities in

Moscow Oblast. The concentration is 70 percent higher than the norm in Podolsk, Obninsk, in the Istra drainage area and the draining area of the Klyazma River, in the middle current of the Moscow River, in the Tula and Novomoskovsk regions, in Serpukhovskiy Rayon, Klin, Podolsk, Sudogda, Rybnoye, and Kireyevskiy.

Instead of Conclusion

Maps and data lie in an ancient separate building on one of Moscow's quiet side streets. Even the listed figures and facts attest: distant Chernobyl was not as dangerous for health and for the natural environment as our central Russian water, food, and air, and the capital's inhabitants themselves have been living for many years on one large radioactive burial ground. They should all be resettled to safe regions, but probably the only safe regions that remain now are in Siberia...

Editor's note: A reading of 8-12 microroentgens an hour is the normal background for Moscow and for Moscow Oblast. A reading of 300 microroentgens an hour—everything that radiates with that power is considered to be radioactive waste products and is subject to special burial and processing.

Ecological Situation in Kaliningrad Remains Dangerous

WS1708142193 Kaliningrad STRAZH BALTIKI in Russian 31 Jul 93 p

[Report by V.Sikorskiy: "Good News... With Implied Meaning"]

[Text] There have not been many reasons for optimism lately, so we welcome any cheerful news as a sensation. The staff of the Oblast Committee for Environmental Protection have presented us with a piece of such news. According to them, in the first six months of 1993, the emission of harmful substances has been cut down from 42,100 tonnes to 32,000 tonnes, in comparison with the corresponding period last year. It means that this year, we are breathing cleaner air than we did last year. However, the committee's report does not point out whether this ecological achievement resulted from enterprises applying some superb ecological technologies or due to the environment friendly decline in production.

Supporters of the "Greenpeace" will lose some of their optimism, when they learn the following facts. Twenty percent of the inspected enterprises exceeded the emission and waste standards. Inspection authorities have reported 10 emergency waste dumps into the oblast's waters, which caused damage estimated at 2.5 million rubles [R]. The fact that the violators paid R1.03 million in fines provides no consolation. After all, it appears that we did not unlearn to crap on our motherland...

From the numbers I have cited, one could draw one conclusion: the ecological situation in our homeland remains dangerous. We will have true grounds for optimism only when our most toxic enterprises employ modern and effective waste treatment systems. Such times, apparently, are not coming soon.

Conference Views Ecological Situation of Moscow, Moscow Region

93WN0606A Moscow NEZAVISIMAYA GAZETA
in Russian 12 Aug 93 pp 1, 6

[Article by Andrey Bayduzhiy under the rubric "Expert Review": "Moscow as a Mirror of Russia's Ecological Crisis: Its Problems Are Typical of Most of the Country's Large Cities"]

[Text] A representative conference "Development and Ecology of the Moscow Megalopolis" took place at the Moscow mayor's office and brought together the leaders of almost all departments which are in one way or another related to the ecological situation in the capital. Minister of protection of the environment and natural resources V. I. Danilov-Danilyan, chairman of the Moscow Architecture Committee L. V. Vavakin, general director of Mosvodokanal [Moscow Water Ways System] S. V. Khromenkov, the chief public health doctor of Moscow, N. N. Filatov, and chairman of the Moscow Nature Committee A. G. Ishkov gave their reports at the conference. The article that is being offered to the readers was prepared on the basis of figures and facts cited in their speeches, and it briefly lists some of the most acute problems of Moscow ecology which are, however, typical of most of the other major cities of Russia, as was repeatedly noted at the conference.

The Attack on the City's "Green Belt"

Today Moscow is a city which is undoubtedly Russia's leader in terms of density of various production facilities. There are 27,000 nature users in Moscow, and 10,000 of them are industrial enterprises. About 6,000 of the latter are categorized as active polluters of the environment. Of the total urban area, housing projects occupy only 24 percent of the territory and green plantings and reservoirs occupy even less—18 percent. The rest of the capital's territory represents production zones and vacant lots, many of which have become unsanctioned dumps.

The rapid shrinkage of the "green wedges" is one of the extremely adverse phenomena in the capital's ecology. In 1992 Moslesopark [Moscow Woods and Park Office] planted only 1,000 trees, and just recorded fellings during this period amounted to 50,000. It should also be borne in mind that a significant part of the fellings certainly are uncounted. Construction of garages and stands, which accounts for most of the deliberate destruction of plantings, has been a real disaster for the park system. The attack on the capital's "green belt" is being waged not only by Moscow but by its closest suburbs. It is declining especially in the rayons of Kozhukovo, Kosino, Lyubertsy, and Butovo.

Pollution of the Atmosphere

Despite the drop in industrial production, the discharge of harmful substances into the atmosphere continues to increase. While in 1989 there were 115 kilograms of discharges per Muscovite, in 1992 there were already 132 kilograms. Of that toxic organic substances and

industrial dust accounted for 7 kilograms each. But overall last year the 178,000 stationary sources of discharges in the city sent a total of 1.184 million tonnes of pollutants into the atmosphere. And only 21 percent of the sources of the discharges were equipped with any purification units at all, a situation which is absolutely intolerable in the late 20th century.

If we examine the structure of the discharges, motor vehicles account for the most significant part of them—77 percent, and of the remaining 23 percent products of the burning of fuel at power engineering installations account for almost half. The southeast and southern districts are the worst in terms of amount of discharges. In the opinion of specialists, if the scale of pollution of the capital's atmosphere continues to increase at the same rate, in 5-10 years the city will have nothing to breathe.

The Negative Effect of Motor Vehicles

Along with motor vehicles from outside Moscow, there are 1.2 million operating in Moscow. And it should be taken into account that the toxicity of the discharges of most motor vehicles which are operated in our country substantially exceeds such indicators for motor vehicles abroad. Despite the economic crisis and the drop in the standard of living resulting from it, every year the number of motor vehicles in Moscow has increased by 30,000-50,000, and, consequently, the tendency of the proportion of motor vehicle discharges in the general structure of pollutants will continue to rise in the future. In this connection a real threat that smog would appear over the capital arose for the first time in recent years. Up to now it had not been registered, with the exception of the rarest cases. Even now the results of space monitoring of Moscow's atmosphere shows that the cap of dense aerosol masses over the center of Moscow is the same as over the most polluted regions of ZIL [Moscow Automotive Plant imeni Likhachev]. Such an adverse situation demands the adoption of emergency measures. Among them is one-way traffic in the zones of Manezh Square, the Lyubyanka, and Kitay-gorod, which is now being introduced. Planned in the future is the organization of uninterrupted traffic along the Garden Ring, with no stoplights.

About 3 million Muscovites live in conditions of acoustic discomfort. Of them a large part have been subjected to the effect of increased noise from the operation of motor vehicles. The proportion of people suffering from the operation of enterprises and railroads is substantially less and amounts to 0.3 million and 0.6 million people, respectively.

Unsanctioned Dumps and Water Supply Problems

There are 111 large unsanctioned dumps with a total area of 225 hectares within the city limits. The central and southeast districts are undoubtedly the leaders in terms of their number and degree of contamination of the soil. Overall each of the capital's 9 million inhabitants accounts for more than a tonne of industrial and household waste. Only 60 percent of the first and 10

percent of the second undergo treatment. In the city there are no installations for utilizing toxic wastes, and a fee for disposing of ordinary waste has not been introduced and accordingly there is no incentive to decrease the amount of it. It is precisely the unregulated dumping of garbage which is one of the main reasons that there is not one reservoir in Moscow whose condition meets sanitary-hygienic standards. NEZAVISMAYA GAZETA already wrote about the situation with the water supply in the capital (No 144 of 3 August 1993). Here we should add only that the water which runs off from the city's aerological stations does not meet most sanitary norms either. Every day 17.5 tonnes of heavy metals are discharged into the city sewage system, and of that 3.8 tonnes later end up in the Moscow River. The concentration of zinc in snow which drains into it after a thaw exceeds the maximum permissible concentration by a factor of 100, the concentration of copper—by a factor of 160, and the concentration of petroleum products—by a factor of 1,000.

Every day 50 tonnes of liquid chlorine are used to disinfect the water coming into Muscovites' apartments. An enormous quantity of chlorine, which is a toxic substance, must be brought in and accumulated in the city to do this. Warehouses of it in Moscow are guarded by the militia, but the hauling of chlorine to the capital from Dzerzhinsk, where it is produced, as well as right in the city limits may lead to incidents whose negative consequences will affect the lives and health of tens if not hundreds of thousands of Muscovites. The transport stage could be avoided by organizing production of harmless dioxides of chlorine at the site, but obtaining it is relatively expensive, and it does not seem possible to do this now.

One of the most acute problems is irrational use of water resources. Thus, about 300,000 cubic meters of water are taken from artesian wells for industrial purposes today.

More than 700 sites of radioactive contamination have been identified on Moscow's territory since 1982. In addition to that, 18 sections for storing radioactive waste are now officially registered in the capital, and an enormous amount of money will be needed to clean them up.

Poor Quality Food

The quality of food products consumed by Muscovites leaves much to be desired. As the research of Gossanepidnadzor [State Committee for Sanitary-Epidemiological Oversight] shows, of the foodstuffs coming to the city 12-16 percent do not meet medical-biological requirements. In the retail trade network this indicator already totals 32 percent of all the samples. The worst food product is milk, which is delivered to Moscow from 32 territories and is frequently hauled many hundreds of kilometers. Of the milk which comes to Moscow creameries, 80 percent is not up to standards.

The Demographic Crisis and the Incidence of Disease

Such an adverse condition of the environment and problems with food naturally cannot fail to affect the

quality of life and lifespan of Muscovites. As in most regions of Russia, the mortality rate continues to rise and the birth rate is declining in the city. According to the opinion of the chief public health doctor of Moscow, Nikolay Filatov, the capital has now entered the area of a demographic crisis. Among the largest cities of the world it is in 62nd place in terms of birth rate indicators.

But even of those 100,000 children who are born in Moscow confinement hospitals every year, only 27 percent are born to healthy mothers. The proportion of basically healthy babies fluctuates at roughly the same level—28 percent. Right after birth 3.1 percent of the children need medical intervention, and by the time they graduate from high school half of the children have one or several chronic diseases. According to specialists' estimates, about 30 percent of the children's diseases in the city are the result of ecological factors. The opposite trend has come to replace the process of acceleration observed in recent decades: while medical exams used to record excess weight among children and adolescents, now the weight is more often too low and average height is declining.

The aging of the population is occurring at a fast rate and 18.3 percent of Muscovites are over 60 years of age today. Diseases of the circulatory organs occupy first place in the mortality structure—57.5 percent, and then come malignant formations—21.9 percent, and injuries and poisoning—7.4 percent.

Despite the fact that the lowest level of incidence of influenza in the last 20 years was noted in 1992, infectious and parasitic diseases are one of the most serious threats to Muscovites' health. Influenza diseases remain the undisputed leader here. Last year of the 2.616 million cases of infectious and parasitic illness in the city influenza accounted for more than 90 percent.

An alarming situation has developed with diphtheria, which is beating all records for a higher incidence of a disease. In the last 3 years the number of those who have contracted it rose by a factor of 8.5 (!) and continues to increase. While 23 people died from it in all of 1992, in the first 6 months of this year 30 people have already died.

Violations of last year's presidential edict on freedom of trade have had a sharply negative effect on the health of the population in Moscow. For this reason, during the winter of 1992, when usually there is a seasonal drop in intestinal diseases, a sharp rise was noted and the situation was turned around only with the aid of sanitary-epidemiological emergency measures which were adopted.

Legal Uncertainty and Attempts at Economic Regulation

The causes of the ecological crisis which is now raging in the capital were laid in many years ago. Irrational use of industrial and natural resources, the lack of nature

protection legislation, and the backwardness of technologies are the main causes. From the very start of industrialization Moscow was developed as a huge industrial center where environmental protection requirements were ignored or not adequately taken into account. Attempts to restrain the city's development in 1935 and 1975 were not crowned with success. Moscow lost its historical chance in 1945 too, when as a result of military evacuation to the east new industrial centers appeared and the capital could have transferred some of its industrial burden to them. The city's industrial base, which was irrationally developed, required human resources which could be supplied only by importing additional working hands to the capital through limited recruitment conducted without consideration of its social and ecological consequences. In the pre-Olympics year alone, 120,000 people were hired in Moscow under this system.

The adverse trends which used to exist were aggravated by legal uncertainty and the economic crisis which erupted in recent years. As the present minister of protection of the environment and natural resources, Viktor Danilov-Danilyan, notes, the prospects for establishing precise legal interrelations in the sphere of ecology are no closer at this time, but are even farther away. Laws on protecting the environment, on the interior of the earth, and on local self-government and the fundamentals of forest management legislation adopted at different times, as well as numerous derivative enactments, contradict each other and permit the most varied interpretations. As a result, the entire nature protection legislative base formulated in 1991-1992 now needs to be revised again.

In Danilov-Danilyan's opinion, the situation in the capital is no different from the one which has taken shape in Russia as a whole. Although in some areas Moscow has all the same managed to move further ahead than other regions. The Decree on the Introduction of Economic Methods of Regulation of Nature Use played a certain positive role here: it envisioned tough financial sanctions for polluting the environment. But even now that this document has gone into effect, the fee for pollution does not cover the damages inflicted on the natural environment; otherwise it would bring 60 percent of Russia's existing enterprises to bankruptcy. According to the estimates of Ministry of Ecology experts, at many production facilities, damages done to nature substantially exceed the cost of all the output produced by them.

Sanctions

Polluters of the environment are being brought to trial more and more widely. Last year 6,000 cases were instituted against them in arbitration courts in Russia by petition of the nature protection organs, and of those cases only 15.98 percent of the cases reviewed which were linked with failure to pay for pollution of the natural environment were not won. However, because of the nonpayment crisis raging in the country and situations where a large number of enterprises are in the card file, money cannot be obtained from debtors even after a

positive court decision. According to the priorities of the Ministry of Finances, charges for damages to the environment are not among the primary ones and are not subject to indexing. In these conditions the environmental protection organs must reach a compromise and leave half of the money collected as fines at the disposal of the enterprises which committed the violations so they can implement nature protection measures.

Official Calls for Immediate Raising of Komsomolets Sub

LD2208190293 Moscow Radio Rossii Network in Russian 1600 GMT 22 Aug 93

[Text] The sunken nuclear-powered submarine Komsomolets should be raised to the surface immediately. Yevgeniy Selivanov, one of the members of the government commission investigating the circumstances of the sinking of the Komsomolets, made this statement in a speech at the Investment in the Russian North conference in Arkhangelsk. He said that should there be a radiation leak, the contaminated zone could encompass the whole area along the Gulf Stream from the Norwegian Sea to the mid-Atlantic. Were this to happen, the region's wealthy fish stocks would become inedible.

Selivanov estimates that the cost of work to raise it would be \$200 billion. However, the value of the materials from which the submarine is made could compensate for the expenditure.

Nothing Being Done To Curb Pollution in Chelyabinsk

PM3108090593 Moscow Ostankino Television First Channel Network in Russian 1700 GMT 28 Aug 93

[From the "Novosti" newscast: Video report from Chelyabinsk by Natalya Prokofyeva and Vladimir Volkov, identified by caption]

[Text] [Prokofyeva over video of Chelyabinsk city scape] Even in Chelyabinsk Oblast, overloaded with radioactive waste, doctors are no less concerned about industrial pollution. There are more than 130 industrial enterprises in the city. They include such giants as the metallurgical combine and the famous Chelyabinsk Tractor Plant, which remains a main producer of tanks. A substantial proportion of our defense industry was evacuated to the southern Urals during the war. At that time little thought was given to purification installations. Not a great deal has changed since then.

According to the city's Hygiene and Epidemiological Service, currently no enterprise in Chelyabinsk fully observes health standards. The fumes from plant chimney stacks contain the entire periodic table.

[V.N. Aleksandrov, Chelyabinsk state hygiene officer, identified by caption] Carcinogenic substances cause particular concern, of course—substances like benzopyrene. Some days the benzopyrene concentration exceeds the highest permissible limit 60-fold. The incidence of cancer among the city population is on the increase,

above all lung and bronchial cancers and cancer of the trachea. Construction of purification installations has essentially stopped.

[Prokofyeva over more video of city scape] True, times are hard at present. But apart from the present there is also the future. We must not forget this, so as not to bequeath our children and grandchildren a terrible legacy. [video shows pan shots of Chelyabinsk industrial installations, interview]

Former Military Plant Producing Alternative to CFC's

PM0109091993 Moscow Ostankino Television First Channel Network in Russian 1700 GMT 30 Aug 93

[From the "Novosti" newscast: Video report from Nizhny Novgorod by Olga Romanova and Valeriy Ivanov, identified by caption]

[Text] [video opens with distant view of city beyond river] [Romanova] It is no secret to anyone that industry in Nizhny Novgorod consists of major defense enterprises which used to be maintained by the state budget. Plant leaders complained that 60 percent of their profit went to the state. But those same plants were paid for construction, the purchase of machine tools, and social development. Now the enterprises pay up to 80 percent tax, both federally and locally. The popular saying comes to mind here: You've got to adapt if you want to survive. In other words, if you want to survive, switch to conversion. Not all enterprises are coping with the tasks that confront them but in Nizhny Novgorod they have found a solution. Take the "Gidromash" and "NIITOP" plants, for example.

[A.A. Gulyayev, chief engineer of the firm "NIITOP," identified by caption] We make this component which is used in the manufacture of environmentally friendly refrigerators. There are just three firms in the world producing these components today. Two are in the United States, the other firm is in Japan. In the "Morozka" refrigerator, for example, the whole back unit will be replaced by a thermomodule like this. [video shows numerous scenes of production activities, interview]

Russian Report on Nuclear Dumping Shocks Ecological Forum

LD3108191693 Moscow ITAR-TASS in English 1514 GMT 31 Aug 93

[By ITAR-TASS correspondent Andrey Varlamov]

[Text] Tokyo August 31 TASS—A Russian delegation taking part in the Seventh Conference of the Global Ecological Forum of parliamentarians in Tokyo proposed today to set up special reserve zones in the ocean.

"Setting up ocean reserves removed from territory waters and economic zones meets difficulties including those of international character," head of the delegation Professor Nikolay Vorontsov told ITAR-TASS.

"Our project, which is a result of efforts of scientists, lawyers, military men, fishermen and other specialists proposes to ban all business activities in certain zones of the Pacific and Indian Oceans," he said.

The Russian delegation submitted a detailed report on the amounts of nuclear wastes dropped into the sea by Russia and the former Soviet Union. The report shocked the audience. According to it, the USSR and Russia have dropped in the northern and far eastern seas in 1959-1992 liquid wastes with a total radioactivity of about 32 thousand curie and solid wastes with radioactivity of about 2 million curie.

The global ecological forum of parliamentarians is a new organization. It includes, besides Russian law makers parliamentarians from the United States, Japan and European Parliament.

Representatives of China, Thailand and Bangladesh are taking part in the conference as observers.

Typhoid Outbreak Blamed on State of Water, Sewerage Network

PM0609104193 Moscow IZVESTIYA in Russian 31 Aug 93 First Edition p 2

[Lidiya Ivchenko report: "Outbreak of Diseases in Rostov Oblast"]

[Text] Medical workers in Rostov Oblast are attempting to deal with a major outbreak of typhoid: A total of 229 people including 77 children have fallen ill in Volgograd. In all, 358 people including 119 children have been hospitalized with a similar clinical condition, so the number of patients with this diagnosis will probably be much higher. This is the first time an outbreak on this scale has been recorded in recent years.

The outbreak has been traced to the state of the water and sewerage networks for which Rostov Oblast is particularly "famed." On this occasion two accidents in a row occurred in a water line at Volgograd, which was constructed in 1984 and had not required any subsequent servicing. The water and sewerage service did not fully disinfect the network or conduct the necessary laboratory tests... And an outbreak of infectious diseases occurred.

Patients initially came down with coli infection, a disease caused by *Escherichia coli*. A total of 125 people fell ill. Then came typhoid, which has a longer incubation period.

"According to our forecasts, we should expect to see infectious hepatitis next," V. Chiburayev, departmental chief of the State Committee for Sanitary and Epidemiological Supervision, said. "Because of this situation the oblast's emergency antiepidemic committee has gone into session, the case has been turned over to the Prosecutor's Office, and the question of removing the director of the water and sewerage service has been raised. But there are many similar situations in Rostov

Oblast. In the settlement of Aksay, for example, 190 people have fallen ill with dysentery after drinking poor quality water...."

The typhoid outbreak is now past its peak, and some patients are already being discharged from hospital. But unless the water supply is sorted out and measures are taken to deal with refugees and vagrants, new hotbeds of serious infectious diseases, for example typhus, could appear.

Japan To Start Monitoring Sea Radiation in Fiscal 1994

PM0609100193 Moscow ROSSIYSKAYA GAZETA
in Russian 1 Sep 93 First Edition p 7

[Unattributed report: "Japanese Will Keep Monitoring Radioactivity of Seas"]

[Text] Tokyo intends to set up a permanent network to monitor radiation in the nearby seas, where the USSR and Russia have for many years dumped nuclear reactor waste. Your ITAR-TASS correspondent was told by Japan's Science and Technology Agency that this department intends to make a concrete start on implementing its program in fiscal 1994.

It plans to establish around 10 monitoring points in the Sea of Japan and the Sea of Okhotsk, where seabed and water samples will be taken twice yearly at various depths.

Russia previously admitted that the USSR had for a long time been dumping spent nuclear reactors and waste in the neighboring seas, including in the Far East. The submersion of solid radioactive substances is currently forbidden, but spent fluids from reactors' cooling systems are still being dumped owing to the shortage of processing and salvage capacities.

Previous Japanese studies have shown that this practice has not so far caused a marked deterioration in the environmental situation.

Ministry Against Processing of Toxic Waste From Abroad

PM1009085793 Moscow ROSSIYSKAYA GAZETA
in Russian 7 Sep 93 First Edition p 3

[Unattributed report: "Don't Poison Yourselves"]

[Text] The Russian Ministry of the Environment and Natural Resources has reacted negatively to the conclusion by Russian enterprises of foreign currency contracts for the processing of waste containing mercury delivered from abroad. One reason is the lack of an effective mechanism for monitoring the condition of highly dangerous cargoes during transportation. Thus, environmental experts recently refused to sanction the processing of waste at the "Krasnodarskiy Rudnik" Metallurgical Plant.

Supreme Court Chairman Zorkin's Environmental Activities Reported

PM1009102793 Moscow ROSSIYSKAYA GAZETA
in Russian 8 Sep 93 First Edition p 2

[Constitutional Court Press Service report: "At the Constitutional Court"]

[Text] On 6 September Russian Constitutional Court Chairman V. Zorkin met with Kemerovo Oblast Soviet Chairman A. Tuleyev, who delivered to the court material on breaches by the Russian federal authorities of the Law "On Environmental Protection" and on their failure to take measures to compensate the oblast inhabitants for the harmful environmental conditions.

Tuleyev briefed him on the environmental situation in the region, which poses a threat to health and life. Inactivity in such a situation by the federal authorities constitutes, in Kemerovo Oblast's opinion, a violation of the universal legal principle of everyone's right to a healthy environment and compensation for damage to health or property caused by infringement of environmental law.

The Kemerovo Oblast Soviet's appeal on the problem of protecting the constitutional rights of citizens relating to infringement of environmental law will be examined in accordance with the procedure established by the law on the Constitutional Court.

On the same day Valeriy Zorkin received Isao Okamura, vice president of the Union of Lawyers of Japan, at the latter's request.

During the meeting they discussed questions of cooperation between the two countries' lawyers.

"It is important for the development of Russian-Japanese ties to ensure that our countries' legal systems of our countries pursue the same goals and there are no instances when one side relies on law and the other on force," Zorkin stressed.

"Law and order are impossible to achieve unless all participants in political life, including top officials, unconditionally observe the laws and carry out the decisions of the judicial authorities," Okamura noted. "In the exercise of this principle the Constitutional Court and the organs of judicial power in Russia can count on the support of Japan's legal community."

AZERBAIJAN

Health Ministry Battles With Petroleum Processing Facility

93WN05644 Moscow RABOCHAYA TRIBUNA
in Russian 3 Aug 93 p 3

[Article by RABOCHAYA TRIBUNA correspondent Ali Naibov: "The Sunsets Are Scented With Furfural"]

[Text] Another scandal has developed in Baku that involves the ecology. Its participants are no strangers to this type of professional-corporative power struggle. On

one side, the Ministry of Health comes forward as proponent for environmental cleanliness and our health. On the other side, the largest oil refining plant in Azerbaijan—the New-Baku Oil Refining Plant (NBNZ)—guards its production interests and economic strength in the republic.

At the republic's Center for Public Health and Epidemiology of the Ministry of Health, I was provided with some interesting information. As far back as 1982, it was written, construction of a catalytic cracking facility was started at the NBNZ. This was done without consent of the state public health oversight organs. At that time, the Baku Public Health and Epidemiological Department asked for a project proposal and, after reviewing it, vetoed construction. There were plenty of complaints by doctors; above all, the project did not provide for creation of the standard one-kilometer public health safety zone around the plant for the simple reason that the designated zone had been occupied for a long time by residential housing, kindergartens, schools, and stores.

"How can that be?" asked the doctors at some very important state agencies. "After all, the refining of sulfurous petroleum has been prohibited since September 1990 by a special decree of the State Surgeon General of the republic. However, if the decree is not an edict for the oil refiners, should they be allowed to ignore similar legislation of the Baku Council of Peoples' Deputies?"

To be more convincing, ecologists have cited some alarming statistics. For the past two years, concentrations of sulfur, nitrogen and carbon oxides, hydrogen sulfide, carbon monoxide, furfural and other harmful chemicals exceeded standards by 4-7 times at the place where there should have been a green public health safety zone. This year the amount of hydrogen sulfide jumped to almost five times the PDK [maximum allowable concentration].

Finally, a bit of good news. All facilities ordered by the Cabinet of Ministers to clean up their operations have been excluded from the cracking plant's startup complex.

"I am afraid that we have lost the battle," said Ilya Moskovich, Head of the Environmental Protection Department at the Center for Public Health and Epidemiology of the republic. "The facility has already been built and, in spite of our absolute refusal at the present time to sign a statement consenting to its operation, start-up preparations are going forward and the furnaces are heating up."

"Yes, we are getting ready to begin production," confirmed Zakir Sendov, Chief Engineer of the NBNZ. "It is disturbing to see efforts by the Ministry of Health to portray us in the eyes of people as such monsters and enemies of the people, while they depict themselves as being so concerned for public health."

"And now, let's get to the point. Along with commencement of operations for the catalytic cracking facility, we

will discontinue the use of two very old and physically obsolete units that have been operating since 1963. This will reduce overall atmospheric discharges. Because heavy sulfurous oil presently comes to Baku only from Kazakhstan and our Azerbaijani oil is light, the average sulfur content of a mix will not exceed 43 percent. So, we will start to refine oil with a low sulfur content and the city can breathe more easily. That is why we are now building a cracking facility without a unit for sulfur removal; however, we will definitely construct such a unit by the end of the year. The same applies to other facilities that will improve the ecology."

"The Ministry of Health conjures up obviously impracticable requirements and knows this very well. The one-kilometer public health safety zone will cost between 250-300 billion rubles [R] at today's prices. The plant does not have that kind of money and neither does the republic, which is burdened with a half million homeless refugees. What are we supposed to do? Should we halt plant operations and change from being a provider to a parasite of the state? After all, oil and petroleum products presently account for two thirds of all income in the budget."

It's hard to figure out who is right in this ecological scandal: the producer, who fans the fire in crucible furnaces while the economy remains sluggish and plagued by crisis; or, the doctor, who adheres to a professional duty?

It is not for me to answer these questions. However, there was one episode—a personal and very painful memory—that determined my place on the other side of the barricades: the illness of my daughter in early childhood. It was God's will that she regained her health. However, her mother was born and lived for 17 years in a non-existent public health safety zone in the "eighth kilometer," where, as they say, congenital problems develop 5-10 times more often than in comparatively clean areas of the capital.

KAZAKHSTAN

Inspection Reveals Nuclear Waste Contamination

LD0609153093 Moscow ITAR-TASS in English
1516 GMT 6 Sep 93

[By ITAR-TASS correspondent Vladimir Akimov]

[Text] Almaty September 6 TASS—More than 35 square kilometres of Kazakh territory are contaminated by nuclear waste. A special state inspection has revealed 419 million tons of deadly stuff [as received] stored in about one hundred depots all over the republic.

The former Semipalatinsk nuclear test range with its 42-year history of underground blasts still presents a major threat. Semipalatinsk region and the adjacent areas have been announced a zone of ecological disaster.

Active uranium mining (Kazakhstan produced 40 per cent of the uranium in the former USSR) contributes to ecological damage by its waste too.

One of the most alarming facts revealed by the inspection is that although the information on the contaminated areas is open to public, minerals from the "dirty spots" are still used in construction work.

UKRAINE

Floods Wash Radionuclides Into Kiev Reservoir

PM1108103593 Moscow PRAVDA in Russian
10 Aug 93 p 1

[Mikhail Odinets report: "Muddying the Water With Nuclides"]

[Text] Heavy rain has led to flooding in the Uzh and Pripyat Rivers, leaving a considerable amount of the territory of the 30-km Chernobyl zone under water. As the level recedes, increased quantities of long-lived radionuclides—cesium-137, strontium-90, and plutonium-239 and -240—have been washed from the soil surface into the Kiev Reservoir. And they are settling there in underwater terraces. The Kiev GES [hydroelectric power station] has run off some of the floodwater, but this should have been done sooner, so as to prevent the water getting into the "zone." Some of the contaminated water has thus entered the Kiev Reservoir. Specialists have given assurances that what has happened poses no threat to people's health.

Parliament Commission Examines Ecological Situation

LD1008184993 Kiev Radio Ukraine World Service
in Ukrainian 1500 GMT 10 Aug 93

[Text] The standing commissions of the Supreme Council of Ukraine do not have any fewer troubles these hot August days. A group of people's deputies of the commission for issues of ecology and the efficient use of the environment is carrying out checks on adherence in the provinces to legislation regarding protection of small rivers.

In accordance with the plan of work for August, the commission has studied the hydrogeological state in Transcarpathia, which has been complicated by prolonged rain. Relevant material is currently being prepared for presentation to Ukraine's Government. This same commission is planning to present forestry and water codes of Ukraine to the eighth session of the Supreme Council. It is currently finishing work on these codes.

The commission for issues of human health is working on a draft law on the public health and epidemic [as heard] well-being of the population, introduced by the Cabinet of Ministers. Proceeding from the fact that an unsatisfactory ecological situation has arisen in a number of Ukraine's regions and many districts have suffered from the Chernobyl disaster, members of the commission believe that the prepared draft law should be aimed at resolving the above-mentioned and other urgent problems.

Leading specialists from the Cabinet of Ministers, the Ministry of Health, the Academy of Medical Sciences, practicing doctors, and representatives of industrial enterprises that work in health protection will be included in the final elaboration of the draft law.

Official on Possible 'Emergency Situation' in Chernobyl

WS1208095993 Minsk Radio Minsk Network
in Belarusian 2000 GMT 11 Aug 93

[Text] The closing of the first nuclear reactor at the Chernobyl Nuclear Power Station is not the issue of the State Committee for Nuclear and Radioactive Security but the issue of the Ukrainian Government, Nikolay (Steinberg), chairman of this committee, said in his interview to the Ukrainian Radio correspondent. He underlined that the use of the first reactor is hazardous because of its outdated design. Nevertheless, the immediate closing of the first nuclear reactor could contribute to the lack of energy resources in the Republic. According to (Steinberg), the possibility of a nuclear emergency situation at the Chernobyl station is not excluded.

Greenpeace Protests Use of Nuclear Power

LD1308085593 Moscow ITAR-TASS in English
0821 GMT 13 Aug 93

[By ITAR-TASS correspondent Galina Nekrasova]

[Text] Lvov August 13 TASS—Ukrainian members of the international Greenpeace organisation have started in Lvov, the westernmost part of Ukraine, an ecological protest action against the use of nuclear power. They will march across Rovno, Zhitomir, Kiev, Odessa and Nikolayev and end the action in Zaporozhye. These are all large cities with nuclear power plants situated nearby.

The task of the ecological action is to remind the population once again of the threat coming from the modern nuclear power plants. The Ukrainian parliament adopted in 1990 a moratorium on the building of new nuclear power units. However, as a result of an economic crisis, some industrial managers seek to disregard it. Mikhail Umanets, chairman of the State Committee for Nuclear Power Engineering, is especially active in this respect. He said in parliament that ten power units with a capacity of one million kw and two with a capacity of 440 are now in operation at the five Ukrainian nuclear power plants—near Zaporozhye, Rovno, Khmelnytskyi, Chernobyl and in southern Ukraine. Another four power units have practically been finished. After they are put into operation, the energy programme will be fulfilled at least by half, Umanets believes.

Greenpeace maintains, however, on the basis of the estimates of Ukrainian and foreign specialists that there is a possibility to give up developing nuclear power engineering without any losses for Ukraine's energy supply. Besides, the national Ministry for Protecting the Population Against the Consequences of the Chernobyl Catastrophe examined the situation in the areas adjacent

to the nuclear power plants. The results of the examination are not optimistic. Thus, some 400,000 people living in six districts in the Rovno region must be resettled immediately.

The situation is similar near the Zaporozhye nuclear power plant. The population of that region is worried over the fact that the authorities are disregarding recommendations of international organisations. According to risk criteria, there should be no more than four power units at one production area, while the sixth power unit is ready to be put into operation at the Zaporozhye nuclear power plant.

'Greens' Report Environmental Damage Inflicted by Military

*WS3108132393 Kiev RESPUBLIKA in Ukrainian
13 Aug 93 pp 8, 9 (Tentative)*

[Report by Viktor Stelmakh: "'Zelenyy Svit' Intelligence Voices Military Secrets Abroad. New Evidence of Army Offenses Revealed"]

[Text] Enemy intelligence agents can only envy the persistence of environmental activists when they explore military facilities. Even though the members of Zelenyy Svit are not allowed to inspect the land surrounding military bases, they continue to gather evidence of environmental crimes committed by the military on both land and sea.

According to the "greens," since the design of ships and submarines does not envision purification equipment, solid and liquid wastes are dumped directly into the sea. The practice of burying expired ammunition with unknown components on the sea bottom is continuing. In Sevastopol Bay, not only a cemetery for ships but also for chemical weapons and mustard gas-type agents left over from wartime were discovered. Efforts to raise all those "goods" to the surface have come up against a wall of silence for years. So have attempts to equip the fuel and lubricants base of the Black Sea fleet with protective installation. They began that effort in 1965. Meanwhile, sea contamination levels around Sevastopol are 270 times higher than officially allowed levels.

Meanwhile, damage to nature is also inflicted by ground forces. The "greens" have estimated that 20 out of 420 military units stationed in Kiev had stored nuclear ammunition until just recently. The Kiev metal-working plant discards its wastes in 52 places, and Kiev-based military unit N63630 in 73 places. The ship-building plant N37 pollutes the Dnieper River with oil products. The Kiev Highest Military School cuts down countless trees. The military unit N22066 in the village of Kosukhivka, Uman Rayon, Cherkasy Oblast, destroyed and sold 78 out of 444 hectares of forest that had previously belonged to it. Still under wraps is the place where the "Arsenal" plant buried its radioactive waste. The nuclear reactor at the Kiev Nuclear Research Institute is still operating despite the lack of purifying equipment.

From among the hundreds of military airfields in Ukraine, 10 have contaminated the local ground water, and practically all of them have inflicted environmental damage of one type or another. Thanks to the nearby air base and aviation plant, kerosene surfaced from underground in the "Oleksandriya" park near Bila Tserkva, and a water test registered high levels of chrome...

The engines of our military aircraft generate low-frequency vibrations of 105-108 decibels, more than the allowed level of 60 decibels. This is why local authorities, as a rule, oppose the building of military airfields on their territory. The airfield in the vicinity of Ivanivka and Velyka Sevastyanivka Villages, in Cherkasy Oblast, the presence of which is ignored by local village councils, raised the suspicions of activists from Zelenyy Svit. It turned out that the Moscow industrial amalgamate "Tayga-1" leased it for ten years, agreeing to pay 42,000 karbovantsi annually. For 14 flights a day, "Tayga" promised the village councils to build a church, kindergarten, and service center. No one knows so far what the Russian company is going to bring in or out of Ukraine. Whatever the case, the fact is that the airfield became a foreign military base situated on the territory of an independent state. Its landing strip has already been widened and is fit for heavy aircraft. An "Irtys" radar and radar station were transported to the facility, but have yet to be installed. The containers were filled with 400 tonnes of fuel. The Ukrainian Defense Ministry and the Security Service of Ukraine support the demands of Zelenyy Svit for closing the airfield, all the more so since "Tayga" is not a citizen with legal rights. Frequent press reports on this issue have yet to produce any results.

The "greens" have promised to continue watching the military, while remembering other initiatives, as well. One of the projects is planting trees to protect the banks of small rivers, which has been overlooked by the press.

Minister of Ecology on Results of U.S. Visit

*WS1708143193 Kiev Ukrayinske Radio First Program
Network in Ukrainian 1400 GMT 16 Aug 93*

[Report by Ihor Polinichenko]

[Text] Speaking of concrete results and not of Yuriy Kostenko's impressions from his visit to the United States, the most important agreement was signed by Ukrainian Minister of Environmental Protection Kostenko and Wasyl Kovalski, chief of a department at the International Bank for Reconstruction and Development at the World Bank. This is a project on protecting the biological variety of the Eastern Carpathians. The Global Ecological Fund will earmark \$500,000 for maintaining the Carpathian Biosphere Park, expanding its territory, and protecting the Carpathian flora and fauna. This sum is not a loan, this is a subsidy allocated for carrying out a concrete project. The Ukrainian Ministry of Environmental Protection will be responsible for the correct use of the loan. Let us listen to Yuriy Kostenko.

[Begin Kostenko recording] We have signed an agreement worth \$150,000 on resolving ecological problems

in the delta of the Danube. We are drafting another agreement worth \$4.2 million on resolving the ecological problems of the Black Sea. Some \$600,000 will be granted for the development of Ukrainian national parks. Due to this monetary assistance, our ministry will be able to improve its activities in the near future.[end recording]

Why was there no assistance in minimizing the negative effects of the Chernobyl accident? This problems remain very acute.

[Begin Kostenko recording] With regard to grants, unfortunately the ministry has no influence on what we are given funds for. The decision rests with the World Bank. In the first place, the bank finances international projects. When I was signing the agreement, I turned to them with a request to view the problem of the Dnieper as an international project. They had no objections about this. However, they have put forward a demand to seek the agreement of Belarus and Russia. We will discuss this issue with these states but I am not sure whether they will agree to the Dnieper project being financed by the World Bank. With regard to the problem of Chernobyl, a special fund was once established at the UN for resolving it. However, through somebody's fault—I do not know whether our state or the world community is to blame—the fund has enough money only for wages for the personnel of its secretariat. The World Bank refuses to discuss the Chernobyl issue, because there is a lack of unanimity on whether this is a global international problem. Notwithstanding the deep economic crisis, our ministry is insisting on shutting down the Chernobyl power plant in 1993. While in Hartford, I saw the reactors that are similar to our RBMK reactors. There, I have been told once again that these reactors used in the former USSR are not safe and the 1986 accident may occur again. Taking into account the economic aftermath of such an accident, we believe that the reactors must be eliminated from use. However, it is not the ministry that makes the decision. This is a right of the government and the Supreme Soviet. Still, if we continue insisting, the government will have to do this. [end recording]

Environmental Advocate on Ecology, Draft Economic Plan

WS3108133493 Kiev Ukrayinske Radio First Program Network in Ukrainian 0500 GMT 31 Aug 93

[Commentary by Mykola Korobko, chairman of the Zelenyy Svit environmental organization]

[Text] I want to point out that the chapter dealing with ecology [in the government's draft economic plan] is a step forward in the direction of adopting a systematic approach to the environment. Article 7, in particular, stipulates the drafting of a long-term national program of environmental protection and rational use of natural resources. This is not the first program to be drafted; we have had programs before. However, we hope that the

new standpoint of the Ministry of Environmental Protection will influence the efficiency with which the program is implemented.

In my opinion, it is very relevant that under the new program, the modernization and reconstruction of enterprises must be preceded by ecological evaluation of projects. Our obsolete technology, laden with equipment and techniques which damage the environment, is in sore need of modernization. I believe that ecological evaluation of projects will produce positive results.

I also want to underline the importance of the article envisioning the creation of a national ecological inspectorate, a long-expected institution. The article dealing with intensifying control over shipments of recyclable material resources and waste also deserves attention. As we know, there have been a number of unpleasant situations prompted by shipments from abroad of harmful substances that cannot be stored in their countries of origin. We must not become the waste dump of Europe. This issue must be regulated.

Expert on Ecological Aspect of START-I

WS1009110093 Kiev KIEVSKIYE NOVOSTI in Russian 3 Sep 93 p 3

[Article by Gennadiy Selivanov, chief of the Military Activities Group at the Ukrainian Ministry of Environmental Protection: "Ready for Disarmament Only Theoretically"; first paragraph published in boldface]

[Text] Ukraine's geopolitical and strategic military situation was the main reason that caused decades-long deployment of large groups of military personnel, facilities, educational institutions, enterprises, and departments on Ukrainian territory. The high density of Army and Navy units and their activity, virtually beyond any control, have caused severe, sometimes irreparable damage to the natural environment. Despite the measures recently undertaken by the Ukrainian Ministry of Defense, the situation is not improving. The upcoming nuclear disarmament of Ukraine is riveting the attention of specialists and the general public.

Unfortunately, along with a significant portion of strategic nuclear forces of the former USSR, Ukraine did not receive sufficient guarantees for safe maintenance and servicing within the framework of the CIS strategic nuclear forces. The measures taken by the president and the Defense Ministry to carry out the Almaty and Minsk strategic nuclear arms treaties found no practical implementation in Rocket Forces units because of political and technical reasons. This is why, Ukrainian people's concern over the security of nuclear missiles to be eliminated, seems natural.

The guaranteed exploitation periods of some missile systems expired this spring, which called for urgent technical measures for removing these missiles from an operational status and preparing them for dismantling. This had to be done before a political decision was made regarding the status of Ukraine as the state that came

into possession of nuclear arms as a result of well known events. In this situation the military, as often happens in emergencies, reached an agreement much faster than the politicians. As a result of this, Ukraine financed a system that guarantees safe maintenance and servicing of missiles, and its normal operation was restored. This, in fact, enabled secure continuation of preparations for making necessary decisions on the fate of nuclear missiles in Ukraine.

At the same time, the situation should not be prolonged because the time factor exhausts the reliability resource of security systems. This factor has started to show already—this year, the resource of twenty missiles expires. Work on removing them from operation is currently under way.

It would be logical to believe that the Defense Ministry possesses a comprehensive program adopted at least at the governmental level, and that ministries and organizations involved in disarmament have started implementing this program in accordance with technically and ecologically safe technologies; that specially trained working groups, rescue crews, and systems, the necessary equipment, and the means of ecological monitoring are already in place at the facilities. One might believe that work schedules exist including loading, shipment, and unloading of the most ecologically harmful nuclear and fuel components of missile systems, and that laboratories are equipped with economically acceptable and ecologically safe technologies for processing, storing, and utilizing these components.

In other words, one might believe that by the beginning of the summer, the preparation and organization of work on eliminating the missiles were handled at the national level.

Unfortunately, Rocket Forces have nothing except their own scarce human and material resources. We should pay tribute to the foresight of some Ukrainian executive bodies. These include the Defense Ministry represented by the Center of Administrative Management of Strategic Nuclear Forces, the Ministry of Machine Building, and some other institutions that drafted a comprehensive program for eliminating nuclear arms in Ukraine. The program was finally drafted, is professional from an engineering and ecology viewpoint, and envisages all the key problems and the means for resolving them.

However, thus far, these are just speculations. Hardly anyone in Ukraine can persuasively explain how the project will be carried out within the timeframe envisioned by the START-I treaty.

Nuclear missiles demand the simultaneous resolution of three intertwined problems—those of granting military, economic, and ecological security. These problems must be resolved in tandem with other issues, so vital to the young state.

In the opinion of some Defense Ministry experts, the elimination of nuclear missiles is a technically simple, although expensive process (preliminary calculations

assess the cost at \$2.8 billion). What causes incongruity between the simplicity and the high cost of the process? The point is that the process of nuclear disarmament is impossible without resolving a lot of accompanying problems, especially grave in Ukraine's case.

The most important problems are: What to do with 1,200 nuclear warheads? What to do with the several thousand tonnes of missile propellant components, whose properties can be compared to strong chemical weapons? What to do with high tech and very durable launch silos? How to carry out risk-free shipments of the hazardous loads, their storage, and utilization? How to ensure the social security of retired missile personnel? How to make the best use of the facilities, infrastructure, and garrisons?

These, and many other problems in some way connected with work on eliminating the missiles, are so complex and costly that the Ukrainian economy cannot cope with them within the timeframe determined by the START-I treaty, without serious foreign financial and technological assistance. By the way, this is one of the reasons hampering the treaty's ratification by the Supreme Council.

I find it appropriate to bring up another serious reason. Under the provisions of the START-I, practical work on the mass elimination of nuclear missiles must begin within 30 days after ratification. Are we ready for this? I am sure that we are not.

At the same time, despite periodical reports by some incompetent mass media, there is no "direct threat of repetition of Chernobyl because of improper maintenance and control of the condition of nuclear missiles." Any expert, more or less competent in nuclear physics and nuclear arms, can confirm that military units equipped with nuclear missiles, will never repeat the fate of Chernobyl, given the existing system of explosion security.

Another issue is that, for various reasons, there is a possibility of increased radiation levels in nuclear weapons storages. Although the weapons are stored in specially built shelters and for practical purposes they do not harm the environment, we do not believe that this can go forever. One of the high-ranking Ukrainian Defense Ministry officials was correct in saying that an attempt to accumulate nuclear warheads in "S" [strategic] facilities for undefined periods of time is like trying to hold a red-hot iron ball in your hands.

It should be mentioned that the problem of safe storage of more than 400 nuclear weapons left by the Air Forces of the former USSR and stockpiled at a few facilities, has not been solved thus far.

It means that not everybody, making such decisions, understands that nuclear weapons require not only a storage facility but also a complex maintenance service facility.

From an ecological aspect of nuclear disarmament, the problem of rocket propellant utilization seems even

more bizarre. While a decision on oxidizers has already been made—its processing technology has been developed and there are appropriate production forces—scientists will have to resolve the heptane problem. Nevertheless, there are still no facilities for storing the rocket propellant components after removal from the missiles. There are no facilities that would provide technical and ecological safety until utilization is completed. To build new storehouses requires not only time but also huge expenditures. The solution rests with specialists and economists.

One should not forget about another very important factor: Many missile systems are located in considerably heavily populated regions of Ukraine, sometimes in the direct vicinity of populated areas. How can one provide safety for dismantling procedures, requiring almost surgical precision, under such conditions? How can we convince the people of the absolute safety of the dismantling work? Moreover, what if we must detonate the launch silos? Experts' data shows that one such explosion can destroy underground facilities within a 25-30 square kilometer range. To detonate using small charges means delaying deadlines and multiplying expenses.

Given the above, one can ask: Is it or is it not beneficial to the young Ukrainian state to ratify disarmament treaties and, immediately after, to begin dismantling work? Additionally, it is quite obvious that to destroy nuclear weapons at our own expense, while keeping all deadlines, means getting into such a mess that only a dream about an independent state will be left.

Terms and deadlines of disarmament treaties might not only create social disturbances, but also technical and ecological disasters. One cannot forget about the diminishing responsibility, efficiency, technological discipline, lack of training and experience in missile system maintenance, as well as the psychological element, such as the well-known belief that it is easier to destroy than to build.

Missile systems are already being withdrawn from combat duty and, eventually, nuclear disarmament has been presumed. Because of that, it is essential to finally resolve the issue of financing dismantling programs. As of today, the budget does not provide for it. Further procedures might be delayed. Enthusiasm is not enough for disarmament. This is number one.

Second. Scientific and technical teams for the development of safe dismantling and utilization procedures should be assigned to clear-cut tasks and obliged to implement them on time. Real circumstances, not imaginary intentions and wishes, should be considered, and financing methods should be provided immediately.

Third. It should be suggested that the Ukrainian Defense Ministry abort the faulty manner—a Soviet Army legacy—of concealing the presence and means of storing and maintaining the most dangerous weapons, nuclear and fuel components of missiles, and other hazardous military equipment. The time has come to make an inventory and to submit the results to the Ukrainian legislative bodies.

Fourth. Taking into account that the process of dismantling and withdrawing expired missile systems from combat duty has already begun, it is expedient to create universal emergency systems and supply them not only with equipment necessary for the elimination of the aftermath of possible accidents, but also with early warning systems. This includes ecological situation monitoring systems and communication equipment.

Fifth. It is necessary, in our opinion, to establish a command and scientific center—or some other coordinating body—for the nuclear disarmament of Ukraine. It should employ specialists and officials from all related ministries along with independent experts.

Today, it is evident that this kind of work requires government awareness, control and strict centralization, flexible leadership, and openness. Today's priority seems to be the evaluation, consideration, and diagnosis of all possible political, economical, technological, and ecological situations, approaches, and expenditures.

FRANCE

Toxic Waste Agreement To Be Signed With New Zealand

AU2008180093 Paris AFP in English 1522 GMT
20 Aug 93

[Text] Paris, Aug 20 (AFP)—France and New Zealand are drawing up an agreement on toxic waste to allow several hundred tonnes of PCB (polychlorobiphenyls) to be imported for treatment at the TREDI factory in Saint-Vulbas in eastern France, the Environment Ministry said Friday.

Under the Basel convention, which France has signed, imports of toxic waste from countries which are not signatories, like New Zealand, is forbidden. But the convention allows for exemptions if they are the subject of bilaterally negotiated agreements.

France has received similar demands to treat waste from several countries who have not ratified the convention, including Thailand and Venezuela. The treatment of PCB waste requires very costly and sophisticated installations, which such countries frequently cannot afford.

The factory at Saint Vulbas specialises in the destruction of PCBs, which are used widely as insulating liquids in condensers and transformers.

In September last year, there was a public outcry over the arrival in France of 1,000 tonnes of toxic waste from Australia. The then socialist environment minister, Segolene Royal, denounced the contract, but agreed that it should be honoured in the interests of ecological solidarity with Australia, which has ratified the Basel convention.

SWEDEN

Winter Storms Bring New Water Into Baltic

93WN0585A Stockholm DAGENS NYHETER
in Swedish 2 Aug 93 p 5

[Article by Hans Strandberg: "New Life on Baltic Sea Floor; Effects of Storm Better Than Expected, Gotland Deep Gets New Oxygen"]

[Text] The deep waters of the Baltic Sea are the freshest they have been in 15 years. Winter storms brought oxygen to the dead sea floor all the way up to Gotland, bringing new hope for the severely threatened codfish.

"The transformation is enormous. In the two big deep holes near Bornholm and Gdansk, the old water has been completely replaced with new water that is salt and oxygen rich. The depths have life again, and this speeds up biological production," said Hans Dahlin at SMHI [Svensk Meteorological and Hydrological Institute].

Since January, when three weeks of hard weather brought in 300 cubic kilometers of water through the Oresund and the Belt, SMHI has been measuring the salt and oxygen contents of the Baltic. In April, no one

thought that the influx would reach all the way up to the sea depths around Gotland, but this proved to be incorrect.

No Hydrogen Sulfide

"Here the effect is not as strong, but for the first time since the 1970's we can measure the oxygen from the surface on down and not encounter any hydrogen sulfide on the sea floor. Now we can only hope for a reasonable influx every other year in order to maintain the positive effects."

"In simple terms, one can say that the Baltic has two stories, making the effects of human environmental pollution different for shallow and deep water."

About 60 meters down is found the so-called salt boundary layer, a kind of cap which divides the brackish water (above) from the heavier, salted water (below).

The sea down to the cap draws its oxygen from the air. The water beneath, on the other hand, can only receive new oxygen by means of the saltwater that streams in along the bottom from the open sea to the west.

This had not occurred since 1976, which means that an ever increasing amount of the sea floor has died. The lack of oxygen has paved the way for hydrogen sulfide bacteria that suffocate life and smell like rotten eggs.

All of this changed last winter in the biggest influx in 40 years.

Too Much Nitrogen

"In the coastal areas, the deterioration of the environment is directly attributable to an excess of nitrogen, which increases algae production and thereby lessens oxygen content. This is not the case for deep water, where the lack of oxygen is chiefly due to poor inflow. Reduction of nitrogen emissions is important even here, but is no salvation," said Hans Dahlin.

The winter's storms could also have great significance for cod production, which has dropped radically since the middle of the 1980's.

The female cod's eggs are laid directly into the water and sink down through the deep until they reach a salt content that keeps them afloat. Oxygen is also needed for the development of the young.

This combination has become increasingly rare. There has been too little salt, too little oxygen, and too much hydrogen sulfide, which inhibits the growth of the cod.

Argos in the Baltic

The Lysekil Marine Fish Laboratory boat, the Argos, is currently on a two-week trip around the Baltic in order to investigate whether the winter storms have brought new life to the cod.

"Logically the influx must be having a positive effect. In part for reproduction, but also because there will be

more food for the cod young during their first vulnerable half year," Johan Modin, marine biologist, told SVENSKA DAGBLADET.

The number of mature cod has decreased from 1 million tons to 100,000 tons in less than 10 years. "But," Modin emphasizes, "that cannot be blamed entirely on low salt content."

"It has to be realized that a female during her lifetime lays more than a million eggs and only two of these eggs are needed to produce new fish for the breed to remain stable. Undoubtedly far more significant was the enormous amount of overfishing that was permitted during the 1980's."

[Box, p 10]

The Storm Brought Life to the Baltic Sea

The heavy storms of last winter pumped in large quantities of water from the ocean to the west and brought life to the depths of the Baltic Sea. Oxygen from the atmosphere does not reach below the salt boundary layer and means that a steady influx is essential. Yet, this occurred most recently in 1976.

One of the objections to the Oresund bridge was precisely that it would prevent the inflow of salt and oxygen into the closed inner sea.

The progressively ailing sea bottom in the Baltic is killing even the cod. Its eggs will not float if the salt content is too low and the young fail to develop adequately if there is insufficient oxygen.

Studies Show Increased Pollution Harming Trees

93WD0585B Stockholm DAGENS NYHETER
in Swedish 2 Aug 93 p 5

[Article by Soren Lofvenhaft: "Damage to the Forests Increases"—first paragraph is DAGENS NYHETER introduction]

[Text] Damage to the forests is spreading over the country and is increasing fastest currently in the least productive areas of Vastmanland county. This has been the conclusion of research on tree health conducted annually on over 30,000 trees around Sweden.

The object of a fuller investigation of how trees thrive is to ascertain the effect over time of air pollution.

In this rainy summer, the trees look very good to the beholder with their luxuriant new growth and greenery in the wooded landscape.

But "patient number 17" in the vicinity of Tarnsjo north of Sala—a pine of some 70 years—belongs to the growing number of forest inhabitants who are doing poorly.

Rundown condition, a thin crown, evident needle loss, dry branches. The strain has taken a heavy toll on number 17. Most of the other numbered pines in the observation area show the same symptoms.

In 1985, 80 percent of the stand of trees was healthy, today only 20 percent.

Nitrogenous Grass

"This is an alarming example of how forest damage has also reached middle Sweden in soil that is lime deficient. It is in these areas that acidity hits hardest," said Goran Hagerfors, director of forest protection at the Forest Protection Board in Vasteras.

In some parts of Vastmanland, the sulfur and nitrogen fallout is 7-10 kilograms per hectare a year. The critical threshold for what nature can tolerate over the long-term is set at 3 kilograms for sulfur.

"We will experiment with liming and for the first time have requested funds for that. It is the only measure we can take beyond intensification of forest protection for maintaining the forest's vitality," said Hagerfors.

Leif Eriksson, a consultant with the Forest Protection Board in Tarnsjo, has in recent years made a number of other disheartening observations in the woods. Blueberry brushwood has declined and it is harder to get plants put into the ground to grow. They are choked by wild grass, a consequence of the excessive nitrogen.

In the woods of the Malardal area, in the areas where the soil is richer in lime, the situation is much better.

Forest health studies, conducted by the National Forest Survey (17,000 fir trees and 1,800 birches) and by the Forest Protection Organization (13,113 fir trees), were started in 1984.

One issue is how great a portion of the damage to the forest is due to "natural" and accidental stress factors such as dry, harsh cold and gales, and how much the constant descent of heavy acid and gases from industrial emissions is responsible for.

Various Stresses

"Often it has to do with the interaction of various stress factors," said Hagerfors.

One thing is clear: It is very difficult to stress a pine to death. It is exceptionally resistant.

In an experiment done by Hans Persson, the roots of a small stand of pines were isolated in plastic for six months. Even so, the trees lived.

A healthy pine has an enormous root system with 60,000 root endings per square meter for the absorption of water and nutritive salts during the growing season.

Persson has found that the damage to the roots of trees in the forest ought to occur in the same proportion as the more evident and easily observed damage of the part of the tree above ground.

Even naturally-occurring stresses strain the root system. Great numbers of roots are destroyed, for example, by strong winds that set the tree tops in motion.

The Ground Vibrates

"If you go into the woods on a windy day, you can feel how the ground vibrates under your feet as the tree roots brace against the wind," said Persson.

But it is the chemical environment surrounding the roots that determines their life span. The effect of acid rain on the Ph level of the soil can be the most serious threat to the forest.

When the Ph level falls below 4.2, aluminum is released into the soil moisture and lies like a film around the tree roots, which prevents the absorption of nourishment.

From the boulder ridge outside of Tarnsjo, Hagerfors studies the thinning crowns of the pines with binoculars.

"It is absolutely necessary to launch a massive and concerted effort against this damage to the forest. The Forest Board has requested that a commission be set up. Action must be taken quickly now that we can see how the trees are suffering even in Svealand. But no one knows for sure what will happen or what is the best thing to do," he said.

Paper Calls for Emissions Limits on Small Vehicles

93WN0585C Stockholm DAGENS NYHETER
in Swedish 12 Aug 93 p 2

[Unattributed article: "Big Reasons Limit Small Emissions; Small Boats, Lawn Mowers, Scooters Must Submit to Same Standards as Autos"]

[Text] Just over a year ago, California introduced emission standards for what was somewhat misleadingly called "work machinery." Emissions of volatile organic substances such as hydrocarbons can be reduced by as much as 80-90 percent for a cost of only a couple of hundred kroner. Beginning 1994, corresponding standards will be introduced for leisure boats.

In Sweden, the emissions from volatile organic substances from work machinery is estimated at 20,000 tons a year and from leisure craft 15,000 tons a year. In comparison, Swedish industrial consumption of chlorinated solvents has dropped from 10,000 to 5,000 tons in five years and is expected to drop a corresponding amount in the next five years.

Approximately a third of the emissions from work machinery arise from garden equipment, another third from motor scooters and other terrain vehicles.

In recent years, a new, if ancient, source of emissions has increased very rapidly. This is wood burning, which has become the largest polluter of volatile organic substances, greater than auto traffic.

Are we not to be allowed to use our motor boats, lawn mowers, snow scooters, and fireplaces in peace?

No, as a matter of fact. There are many very good reasons to lean hard on manufacturers as well as consumers with regard to leisure activities that manifestly

and unnecessarily harm the environment. There are new kinds of fuel and motors on the market; it is merely a matter of getting the consumers to buy them.

That a motorboat that navigates sensitive waterways or a lawn mower in a yard may freely spew out pollutants that are not permitted for automobiles does not seem especially logical.

If Sweden for reasons of trade cannot follow California's example, people with boats, scooters, and lawn mowers should at least be subjected to moral pressure. For example, do boat owners realize that the gaseous fumes from their treasured vessels are a major contributing cause to the death of the seabed in Stockholm's archipelago?

UNITED KINGDOM

Inspectorate of Pollution Approves THORP Uranium Testing

BR3008135593 London Hermes Database in English
25 Aug 93

[UK press release from the Department of the Environment: "Uranium Testing at THORP Given the Go-Ahead"]

[Text] The Chief Inspector of Her Majesty's Inspectorate of Pollution [HMIP], Dr. David Slater and the Minister of Agriculture, Fisheries and Food, Gillian Shepherd have today granted variations to BNFL's [British Nuclear Fuels Ltd.] existing authorisations to discharge liquid and gaseous radioactive wastes from Sellafield, to permit the testing of the Company's Thermal Oxide Reprocessing Plant (THORP) with natural and depleted uranium. The variations will come into effect on 2 September 1993.

The grant of the variations is without prejudice to consideration of the Company's main applications for Sellafield currently being undertaken by the Secretary of State for the Environment and the Minister of Agriculture, Fisheries and Food. The variations would require the Company to stop testing and decontaminate the plant if the decisions on the main applications do not permit THORP to operate.

Notes for Editors

It was announced on 22 July that the Minister and Chief Inspector were minded to grant variations to the radioactive waste discharge authorisations held by BNFL, to permit the testing of THORP with natural and depleted uranium. The tests would enable the Company and the Nuclear Installations Inspectorate to assess the chemical and physical processes involved in operating THORP and thereby to measure the plant against its design criteria. The variations do not increase the existing limits on emissions from Sellafield and do not provide for the introduction of spent nuclear fuel to the plant.

As required by the Radioactive Substances Act 1960 (as amended) the Minister and Secretary of State for the

Environment offered BNFL the opportunity of a hearing, which it declined. It was decided that, in all the circumstances, it was not appropriate to offer an opportunity to make oral representation to any other persons.

The Authorising Departments have received comments from a range of interested parties including environmental interest groups, trades unions and local authorities on BNFL's application for variations. The Minister and Chief Inspector, having considered all the relevant issues including those raised by the parties who submitted comments, have decided to grant variations to the existing radioactive discharge authorisations for gaseous and liquid wastes held by British Nuclear Fuels Limited. Copies of the variations as issued, are attached. They come into force on 2 September 1993.

A total of 124 letters were received by HMIP, up to 13 August, commenting on the proposals. Of these 54 were opposed to the variation to BNFL's authorisation and 70 were in support.

UK Publishes Landfill Practice Information

*BR1009131393 London Hermes Database in English
8 Sep 93*

[UK press release from the Department of the Environment: "Information on Landfill Practice in the UK Published"]

[Text] Co-disposal is a valuable and environmentally sound method of waste disposal, said Tim Yeo, Minister of State for the Environment and Countryside, at the publication today of a brochure describing landfill practice in the UK and, in particular, the method of waste management known as co-disposal.

Mr Yeo said:

"This brochure clarifies what is meant by co-disposal and explains in non-technical language the natural processes that are involved.

Co-disposal is the treatment of selected industrial and commercial liquid and solid wastes by interaction with

biodegradable wastes in a controlled landfill site. The brochure published today concentrates on one important aspect of this; the disposal of difficult industrial wastes with bio-degradable wastes.

The natural processes, for instance degradation, which take place within a landfill site are well understood. This brochure explains how co-disposal makes use of these processes to render harmless over time the potentially hazardous element of certain industrial wastes.

Co-disposal is a vital form of landfill disposal in the UK, with 2.8 million [metric] tonnes of difficult industrial wastes (70 percent of total arisings) being disposed of in this way each year. We believe that, properly controlled, co-disposal is a valuable and environmentally sound method of waste disposal."

Notes to Editors

The publication of a brochure on landfill practice in the United Kingdom has been timed to coincide with renewed negotiations on the draft EC Directive on the Landfill of Waste. The Directive was first put forward by the European Commission in 1991 and is intended to harmonise technical and operational standards for the landfill of waste, give a high level of environmental protection and reduce distortion of industrial competition throughout the European Community. The Directive is being taken forward under the current Presidency of the European Community. Working group discussions began in July.

The brochure, entitled "UK Landfill Practice: Co-disposal" is being published in French and German as well as in English. Mr Yeo has written today to environment ministers in Europe, the European Commission Environment Commissioner, United Kingdom Members of the European Parliament and Members of the European Parliament Environment Committee enclosing copies of the brochure.

Free copies of the brochure can be obtained from the Department of the Environment, PO Box 151, London E15 2HF (Fax 081 533 1618).

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